

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.
JANUARY 3, 1924

Our New Year's Wishes.



The herald angels sang to the shepherds on Judea's plain, "Peace to men of good will." So we would extend our New Year's wishes for abounding prosperity and for peace and happiness to every reader who is a man of good will to his fellow man and who patriotically obeys the laws of his country. To such may the year upon which we have entered bring heaven's richest blessings.

To all who are not men of good will and who unpatriotically violate the laws of their country and who by their example help to create a spirit of immorality, anarchy, and evil of every kind, we can sincerely wish for their own good and ultimate happiness that the sting of an awakened conscience may quicken them into a new and broader and higher life.

Our good wishes for the latter class are therefore for their own happiness and for prosperity—materially, morally, and spiritually—equally as strong as for the first class.

Despite all the croakings of the pessimists and all the sin and evil that are rampant and vulgar in their display of criminality, the spirit of betterment, of higher moral standards, of a deeper sense of responsibility to help our fellow man, the spirit of the Golden Rule, the spirit of Him who spake as never man spake, is marching on through the hearts of men and women everywhere.

Let the new year carry forward the good work, and may every reader of this paper do his part and receive his blessing! This is our sincere wish to one and all.



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PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Corner Commerce and Water Sts., Baltimore, Maryland.
RICHARD H. EDMONDS, President; FRANK GOULD, First Vice-President; VICTOR H. POWER, Second Vice-President;
I. S. FIELD, Secretary; J. ROBERT GOULD, Treasurer

RICHARD H. EDMONDS, Editor

BRANCH OFFICES:

CHICAGO, 11 So. La Salle St.
BOSTON, 734 Old South Bldg.

NEW YORK, 901 Singer Bldg.
CINCINNATI, 923 Union Trust Bldg.

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year. Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

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Manufacturers Record

EXPONENT OF AMERICA

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of the South and Southwest as the Nation's Greatest Material Asset

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Vol. LXXXV No. 1
Weekly.

BALTIMORE, JANUARY 3, 1924.

{ SINGLE COPIES, 20 CENTS.
\$6.50 A YEAR.

An Economic Factor of World Wide Influence Now in Evidence Here and Abroad.

SOME years ago when the railroad executives of the country by mutual agreement decided that no man who used alcoholic drinks would be allowed to run a locomotive they added enormously to the safety of travel. Fortunately, the Brotherhood of Locomotive Engineers, one of the best labor organizations in the country, composed almost wholly of American-born men, also has a rule that no one who takes intoxicating drinks on or off duty can be a member of that organization, which has over 90,000 members. And President Stone, in his recent letter to the MANUFACTURERS RECORD on the subject, stated that at a meeting of the Brotherhood the prohibition law had been unanimously approved and its enforcement demanded.

Following the action of the railroads and the Brotherhood of Locomotive Engineers, the iron and steel people came to a realization of the fact that viewed strictly from the economic standpoint, disregarding the moral side of the question, the use of intoxicating beverages by any of their employes greatly increased accidents and resulted in many deaths. They, too, began a campaign for eliminating the drink habit from their men, and some of them in letters to this paper five or six years ago pointed out that they would not employ any man who drank, and others said that in times of business depression the men whom they first discharged were those who used intoxicating drinks either on or off duty. This, too, was taking the economic view of lessened accidents and fewer deaths from accidents, and the better physical condition of the men. At the same time, all of these interests fully recognized that this meant also a moral betterment of the men and a great benefit for their families.

Years ago we pointed out that while the prohibition advocates and the Anti-Saloon League and the religious leaders of the country had accomplished wonderful things, they could not for many years more have carried prohibition through if it had not been for the tremendous influence of the railroad and the business interests of the country in behalf of prohibition.

We have also pointed out that increased efficiency of men who do not drink would ultimately, if prohibition is maintained in this country, compel Europe to adopt prohibition to save itself from economic disaster in competition with American working men.

All of these points are very strongly stressed in an article in the Century Magazine for January, written by Charles Edward Russell under the heading "Is the World Going Dry?" In sending us an advance copy of this article the Century Magazine, through Miss Mary Dennen Hanlon, writes the MANUFACTURERS RECORD as follows:

"Charles Edward Russell has been in Europe at the re-

quest of the Century magazine studying the prospects of world-wide prohibition. In his article "Is the World Going Dry?" in the January Century, he reports that prohibition in America has been so successful from an economic standpoint that industrial Europe will be forced to adopt it. Mr. Russell declares that in England particularly, prohibition is making great strides. He quotes Mr. G. C. Vyle, a British business man and anti-prohibitionist, who came to America to observe the workings of the new reform, as stating upon his return in a speech at Birmingham that 7 American working-men with the same plant, same material, same facilities, could produce more than 10 British workmen.

"Mr. Russell says that whenever the British Parliament is in session hardly a day passes without discussion or mention of prohibition and in England alone 207 societies are working for prohibition. In Germany and Japan Mr. Russell finds prohibition is advancing. He finds that in France and Italy where agricultural interests are bound up with viticulture, the grape growers are seeking other uses than wine for grapes.

"Prohibition in America, Mr. Russell says, has already upset the well established balance of production on which international distribution is based and he says that the industrialists of Europe are looking with wry faces at the new element in American success.

"Mr. Russell takes away from the Anti-Saloon League the glory and responsibility of having put prohibition over. Big Business, he says, noted the astonishing increase in British production when alcohol was taken out of the workingman's beer, and rushed the Eighteenth Amendment into the Constitution.

"Since you have been working for prohibition from an economic standpoint for sometime, I think you will be interested in this article and I am sending you advance proofs of it today. We shall be very glad to cooperate with you in any way in which you think this article might most effectively be brought to the attention of the industrialists throughout the country."

The investigation of European conditions in the matter of prohibition by Mr. Russell strongly confirms the views previously expressed by us as to the economic benefit to the men and to industry of abstention from alcoholic liquors.

Referring to the history of England's efforts to provide its troops with munitions, Mr. Russell said that "in the appalling emergency when commanders on the front begged and implored for shells which were not available, and every minute of labor became of vital importance, efficiency in production suddenly loomed upon statesmen as the substance of the whole situation. Upon it hung the nation's life. It was discovered that above everything else and at all times the chief

enemy of efficiency was the national drink habit," and he adds:

"Whether statesmanship believed or disbelieved in prohibition as a principle mattered nothing; there were the facts with which the Government had to deal. Workingmen whose brains were dulled with beer were inefficient producers. At a time when every second was precious to the national welfare, beer was causing the loss of time that mounted into the equivalent of months.

"It was largely because of beer that commanders were clamoring in vain for shells, and the western front was often silent for their lack. Records kept at munition and other factories showed that week after week normal production was never attained before Wednesday. Everywhere the figures for Monday and Tuesday were below the mark. The reason was that on Monday many workers came to their work still unsettled from their exploits of Saturday night and Sunday. Even by Tuesday many had not rebounded to their natural tension. It would be monstrous, of course, to affirm or to suggest that drunkenness was the rule or even common among British workers; but drink was common, and it was drink that worked this havoc. The noon hour, with its pot of beer and bit of cheese, time out of mind the poor worker's luncheon, was another disaster. Everywhere the first two hours after luncheon were hours of slackened production, at a time when moments were like diamonds and there were no shells for the western front."

"Drink in England is Germany's most powerful ally," said the prohibitionists, and there was no gainsaying their indictment. Experiment showed that where men could be induced to pass up the beer at noon there was no complaint about slackened production for the rest of that day."

The situation was met for the moment, not by taking beer away from the men, as it was regarded that that at the time would be impossible, but by taking alcohol away from beer. This situation "raised production to normalcy, and sent first to Sir John French and then to Haig the shells they needed."

Mr. Russell gives the details as to how this was done and how restricting the amount of grain to be used by the brewers, the alcoholic contents were eliminated from the beer. The result was a great decrease, as shown by his tables, in drunkenness as compared with pre-war days.

The lesson learned by England in this particular has not, according to Mr. Russell, been lost. "In the present stage of industrial civilization, production," he adds, "means too much to the world, and what affects production is too profoundly important." And he adds still further, "The truth is, a force has come upon human society more potent than guns, armies, governments, press, or public opinion. It is this indeterminate and almost incalculable power of production needs. Certain basic products mankind must have; as population increases and distribution becomes more complicated, so the more imperative become these demands; and on the supplying of them rests, not without peril, the whole business structure."

* * * "The land of the free—where a man cannot get a drink!" was at first a favorite sneer of the complacent Briton as he read of America's draconic remedy for the inefficiency bred by drink. It is a sneer that in these days is fading from British lips. Efficiency is promoted by the taking away of a part of the alcohol. Does not that indicate surely the taking away of the rest? And to that question no one has been able so far to frame a really apt reply."

Referring to this country Mr. Russell said: "We could never have production at its best and also have John Barleycorn, and before this iron-visaged fact Barleycorn must go skipping. All the experiments with state-wide prohibition had shown the same finalities. Everywhere production had been stimulated; production costs had been reduced in proportion to the output. It was this revelation that spread the tide from State to State. Every condition of industrial pro-

duction notably improved wherever the saloon was abolished. Without expense, the yield of mine or factory was enlarged. Employers had the equivalent of an increased force of workers without an increase in the payroll. For years augmented production efficiency had been much in the thought of every wise manufacturer. How many 'speeding up' systems, how many well devised plans of premiums and rewards had been proposed, how many strikes they had caused or threatened, memory flags to recall. Now all these ends were achieved by the simple and inexpensive means of throwing out the beer-can. Under such conditions the beer-can was out to stay out.

"The theory of prohibition may be good or bad; it is to the physical fact of prohibition that we chiefly owe the strangely placid economic waters in which we now navigate. At a time of profound agricultural depression all other industry should suffer. Other industry does not suffer now, but does more than usually well because increased production efficiency enables production to stand the strain of raised wage levels.

"Foreigners are beginning to note these facts, even if we ignore them. After two years of American prohibition, Mr. G. C. Vyle, a British business man and anti-prohibitionist, came to this country to observe the workings of the new reform. On his return he was quoted as declaring in a speech at Birmingham that seven American workingmen with the same plant, same materials, same facilities, would produce more than ten British workingmen."

Mr. Russell quotes the president of a Pittsburgh manufacturing company as saying, "Prohibition has been an incalculable economic and moral blessing to millions of our people and to the nation as a whole. There is far less drunkenness and waste of time and money; there is greater steadiness among laborers, more saving of money, better care of homes."

The testimony of this Pittsburgh manufacturer is in harmony with the testimony of thousands of employers of labor throughout the entire country, and of students of moral conditions as well as students of economic affairs.

No man who travels on the railroads would for a moment dare to suggest that the railroads were unwise in forbidding any of their engineers to drink. Every man knows that his life is the safer for this provision. No man would dare to suggest that the American Brotherhood of Locomotive Engineers has no right to take from its membership the so-called "personal liberty" of drinking whenever the members desire, for every man knows that this provision has resulted in greater safety to all travelers and thousands of lives and millions of dollars of property have been saved from destruction by reason of the enforcement of this rule.

The so-called "personal liberty" of locomotive engineers is thus taken from them by the railroads first, and then by their own organization. And yet all men, even drinking men, are compelled to recognize that there was wisdom on the part of the railroad executives and wisdom on the part of the railroad brotherhood in forbidding the use of intoxicants. Many men who freely admit this, because they know that it adds to their safety in travel, yet presume to deny to the National Government the right to take from them their "personal liberty" of violating the national laws by drinking whenever they please, regardless of the fact that in violating these laws they are breaking down the respect for all laws.

With one claim made by Mr. Russell we unhesitatingly dissent, and millions of right-thinking Americans will likewise do so. In one of his opening paragraphs he says:

"The only test of prohibition that counts is economic, and Europe is getting ready to own, in ways to cause some astonishment, that under such proving American prohibition stands up well."

The moral side of prohibition is greater than the economic, as much greater indeed as life is greater than purely material things.

Millions of devoted prohibitionists, men of great business

interests, as well as religious people of every class, have thought far more of the immeasurable value of prohibition from the moral standpoint than from the economic. Millions in fact have never even thought of prohibition from the economic side.

In the statement quoted Mr. Russell would put a slur upon the consecration—to man's moral and spiritual advancement and to the saving from untold misery of women and children—of millions of men and women who for more than half a century have fought a heroic battle against the liquor traffic.

Railroad and big business interests helped to crystallize this sentiment into action, but their work would have been in vain if the seed had not been sown by others who thought not in terms of business but in terms of lives and immortal souls.

FEDERAL RESERVE BANKS BUYING GOVERNMENT SECURITIES.

MR. THEODORE H. PRICE, editor of Commerce and Finance, in his issue of December 12 takes strong ground against some of the present operations of the Federal Reserve banks of the country. He states that the action of the reserve banks which buy government securities with their unemployed resources rather than reduce the rediscount or acceptance to a figure that would attract commercial borrowers and put money in the channels of trade, is in his opinion contrary to the methods which should prevail, as it is a definite attempt to control the rate for money; and discussing the subject he says:

"In an editorial upon the subject the New York Journal of Commerce says that some careful observers estimate that \$1,000,000,000 must be kept steadily at work in order to provide the income that the Federal Reserve banks require to pay the heavy overhead charges which were developed through the salary and building program of the war and post-war years."

"This means that it costs about \$40,000,000 a year to run the twelve Federal Reserve banks and the Federal Reserve Board. The intimation is that the effort to maintain rates is due to a desire to earn the cost of extravagant management. But whatever the explanation it is debatable whether the Federal Reserve System should be allowed to use its enormous power to factitiously contract the money market.

"Sooner or later the control so exercised will be mistakenly used or abused and the Federal Reserve banks will go the way of the First and Second banks of the United States.

"It is because we are anxious to avert such a disaster that we are jealous that the officers of the Federal Reserve System should not exceed the powers vested in them by the Federal Reserve Act.

"We cannot find that the act gives them the right to control the money market and feel that their assumption of this power sets a very dangerous precedent."

We fully agree with Mr. Price, and have so stated many times during the last five or six years, but the power to control the money market which the Federal Reserve Board has constantly assumed, whether it had the legal right or not, is a power of tremendous danger and may, if not wisely handled, produce such a storm of protest as to utterly destroy the whole Federal Reserve System. However great may be the Reserve System if constantly wisely managed, its very organization gives to it power to assume the right to control the rate of interest, and thus control the business operations of the country. It can inflate or deflate—whenever it so desires—the finances of the country, and that means the inflation or deflation of all business activities—a power so vast as is bound sooner or later, unless it is handled by men of the highest integrity and soundest judgment, to produce hostility which cannot be downed.

For the good of the country we trust that the Federal

Reserve Board may be as "wise as serpents and as harmless as doves."

Our readers will remember that two years ago the banks of the country were directed by the Federal Reserve management to force Government bonds out of the banks, which resulted in a loss of hundreds of millions of dollars to innocent bond buyers and to a gain of an equal number of millions by big capitalists who bought them at low prices. And now these same banks are buying what they formerly ordered member banks to cease to loan on!

SOUTHERN BANKERS SHOULD ENCOURAGE SOUTHERN PEOPLE TO BUY LOCAL MUNICIPAL SECURITIES.

THE South is issuing many millions of bonds, and most of them wisely issued, for public improvements. In this section the demand for capital is so great that these bonds to a very large extent are being sold to Northern and Western investors who have a surplus of money available at a lower rate of interest than most people of the South are willing to accept. In this section by reason of the fact that we have not accumulated great floating capital as has the North, the rate of interest averages much higher than it does in regions where capital has accumulated and is seeking investment.

Nevertheless, it would be the part of wisdom for every financial institution in the South to do its utmost to encourage among its own people the purchase of local bonds.

When Lincoln was once asked about the value of a protective tariff he is reported to have said: "I don't know very much about the tariff. But I do know that when we buy steel rails in England, England has the money and we have the rails; but when we buy steel rails made in this country we have the rails and the money also."

This doctrine applicable to the tariff, is equally applicable to the investment by the South in Southern securities. The purchase by Northern and Western investors of hundreds of millions of dollars of bonds issued by the South draws annually upon the South for many millions of dollars of interest money. If this interest money could be retained in the South every local improvement made by bonds would add to the wealth of the community and retain at home the money which is now paid to other sections.

A banker who recently took the entire issue of securities of a Southern town, when asked whether these bonds would be handled locally or not stated that they would be sold entirely outside and that no effort would be made to sell them to local people, because they would not be willing to accept a security bearing so low a rate of interest, though people in other sections are eager to buy them.

We believe the policy of the bankers in the South should be to encourage their customers by active and aggressive, broad-minded publicity work to buy Southern bonds. It is true the rate of interest may be lower than can be had on mortgages and some other lines of investment; but as the Southern people are encouraged to invest in their own state or municipal issues they will take a deeper interest in the welfare of the community that will gradually build up an accumulated surplus for further investment. That they can be induced to do this was shown by the very heavy subscription of Southern people to the war bond issues which paid a very much lower rate of interest than state or municipal securities as now issued.

It might take some work, some intelligent action, and some expenditure on the part of Southern bankers to build up at home a clientele which would absorb a large proportion of Southern bond issues, but every effort made to bring this about would add to the general prosperity of the South, and thus would return to the bankers carrying on this campaign a full measure of profit in the years to come.

EUROPE BUYING HEAVILY OF COTTON WHILE AMERICAN MILLS HAVE TAKEN LESS THAN LAST SEASON.

PROOF that European spinners were quicker to sense the world's cotton famine than American spinners is again shown in the continued heavy exports of cotton which for the week ended December 21 amounted to 257,572 bales, or more than double the exports for the previous week and nearly double the amount shipped the corresponding week of 1922.

From August 1 to December 21 cotton exports amounted to 3,070,944 bales or a gain of 364,000 bales compared with the same time last year. In contrast with these heavy exports to Europe is the decrease in the takings by Southern spinners from August 1 to December 21 of 304,000 bales and the decrease in the takings of Northern spinners during the same period of 193,000 bales. Thus while European spinners have already taken 364,000 bales more than for the same time last year American spinners have taken 497,000 bales less. Indeed the total takings of Northern and Southern spinners is only slightly in excess of the amount exported.

The export figures show how eagerly European spinners got into the market ahead of American spinners. Much of this cotton was bought by Europeans at ten to twelve cents a pound less than the present price and they probably still have a large amount of cotton bought months ago for shipment later on in the season.

We are moving forward steadily to an inevitable cotton famine. Many mills will be forced to close for lack of raw material and others will be able to run only on short time. It is nearly eight months before the first movement of next year's crop will begin and the world's available supply for that period is so far below the world's actual needs that not only will many mills have to close before the new crop comes to market but we will enter next year's crop period on an absolutely famine basis of American cotton for the world.

A GREAT SPECIAL ISSUE.

THE Tribune, of Tampa, Fla., of December 23, which is probably correctly described as "the most ambitious undertaking of the kind ever accomplished in the Southeast," was a remarkable publication. It was an exponent of the life and activity and spirit and enthusiasm and the broad publicity which is causing Florida to attract the attention of the entire country.

The special issue of the Tribune consisted of 200 pages of the full, usual size, composed of fourteen sections, each devoted to some phase of the progress of Tampa or south Florida. Each copy of the paper weighed four pounds.

In giving some details in regard to the size of the paper and its circulation, the editor of the Tribune calls attention to the fact that over 161,000 pounds of paper, costing more than \$8000, were required for this issue; and presenting some interesting facts in regard to the cost of postage under the present unwise zone regulation system, it is shown that in Florida, zones 1 and 2, the postage on each copy mailed will be 8 cents; but in zone 3, which includes Georgia, the postage will be 12 cents; and zone 4 in Alabama 20 cents. It will cost the Tribune 40 cents to mail a single copy to California or Canada, and 28 cents to New York or Chicago. And yet an individual mailer who wants to send out a copy can mail one to any part of the United States for 16 cents, the rate to the individual being very much less than the rate to the newspaper itself for anything beyond zone 3.

No man can read the special issue of the Tribune without having a new and broader view of Florida, its achievements, its potentialities and its future. The very life of Florida's activities breathes through every page.

THE COST OF BUILDING OPERATIONS NOW AND IN THE FUTURE.

THERE is probably not a more conservatively managed building and developing company than the Roland Park Company of Baltimore. Controlled as the company is by some of the leading financial interests of the city and managed for the last thirty years by Mr. Edward H. Bouton, and associates, it has done remarkable development work in the building up of a suburban district of one thousand acres of restricted land. In its conservatism it has rarely ever made mistakes in advising its customers as to building operations. This fact, therefore, makes it especially interesting to note that at the present time that company is carrying a series of advertisements in the Baltimore daily papers emphasizing its belief that building operations will not for many years, if ever again, be more favorable than at present.

It is backing its faith in the belief that, "this winter offers the most favorable opportunity for building a home this generation will ever see," by offering to finance building operations on its property over a long term of years, up to 80 per cent of the actual cost of the lot and the improvements to be put on it.

In one of its recent advertisements the company mentions the fact that during the first eleven months of 1923, 3939 new houses were built in Baltimore, or more than in any complete year in the history of the city. Real estate operators invested about \$20,000,000 in their construction and these houses were largely built for sale.

In the month of November building contracts awarded in Baltimore amounted to \$5,372,000. In commenting on these figures, the company in its advertisement says, "If the commercial builder considers this a favorable time to start construction, on what ground does the home builder, whose first interest is not commercial, further delay?"

The MANUFACTURERS RECORD was recently asked for advice as to whether the present would be an appropriate time for beginning the erection of some theological seminary buildings to cost ultimately several million dollars. In reply some of the facts contained in the advertisements of the Roland Park Company were given and to these were added the statement recently made by S. W. Straus of New York, who for thirty years has been handling millions of dollars on mortgages on buildings throughout the country, in which he stated to President Coolidge that in his opinion the country would probably do about \$8,000,000,000 worth of contract work next year as compared with \$5,000,000,000 during 1923, and even at that rate it would take a year and a half to fill up the vacuum created by the failure to build in the past in keeping with the growth of the country.

The views of other leading authorities were also quoted in favor of building now, including the advice of the American Construction Council published in full in a recent issue of this paper urging that building work be pushed during the winter in order to lessen the tremendous pressure that would likely be put upon the country in the spring. We are repeating these facts in order to emphasize to our readers what seems to us to be the fundamental condition of building operations, for the next few years at least.

NEGROES RETURNING SOUTH.

NEGROES are moving back from Chicago and other western points to the central South in large numbers. A dispatch from Memphis reports that the Illinois Central is running a special train from Chicago to Mississippi carrying 247 negro families, and R. J. Carmichael, Assistant General Passenger Agent of that road, stated that this is the first of a series of special trains which will bring many negroes from the West to the South.

HENRY FORD AND MUSCLE SHOALS.

REPRESENTATIVE MADDEN recently introduced in Congress a bill, referred to the Committee on Military Affairs, "authorizing and directing the Secretary of War, for national defense in time of war and for the production of fertilizers and other useful products in time of peace, to sell to Henry Ford, or a corporation to be incorporated by him, Nitrate Plant Numbered 1, at Sheffield, Alabama; Nitrate Plant Numbered 2, at Muscle Shoals, Alabama; Waco Quarry, near Russellville, Alabama; steam power plant to be located and constructed at or near Lock and Dam Numbered 17 on the Black Warrior River, Alabama, with right of way and transmission line to Nitrate Plant Numbered 2, Muscle Shoals, Alabama; and to lease to Henry Ford, or a corporation to be incorporated by him, Dam Numbered 2 and Dam Numbered 3 (designated in House Document 1262, Sixty-fourth Congress, first session), including power stations when constructed as provided herein, and for other purposes."

Section 20 of this bill says:

"All of the contracts, leases, deeds, transfers, and conveyances necessary to effectuate the acceptance of said offer shall be binding upon the United States, and jointly and severally upon Henry Ford, his heirs, representatives and assigns, and the company to be incorporated by him, its successors and assigns."

In this bill it is still proposed that the lease to Mr. Ford, or to the company to be organized by him, is for a 100-year period.

Regardless of any and all other questions at issue, we do not believe that the Government should lease that property to Henry Ford, or to any one else, for 100 years. This is contrary to the power legislation of the Government; and that legislation was effected after years of discussion on the subject.

Neither do we believe it wise that the Government should build for Henry Ford, or for leasing or selling to him, a steam power plant to take the place of the Gorgas Plant, since if Mr. Ford was at all advised when he made his proposition he must have known that the Government had no right whatever to agree to sell that plant since it was already under contract to another company to have the privilege of purchasing it.

There is one feature in the bill, however, which is interesting, and if the bill were passed and accepted by Mr. Ford it would bind him and his entire estate and his heirs and representatives for the full length of the lease, and thus meet one of the objections which the MANUFACTURERS RECORD raised to a lease to Mr. Ford, or rather to a company to be organized by him. That point is greatly in its favor, but there are many other questions connected with the proposed lease to Mr. Ford which are open to decided objection. These, however, will doubtless be threshed out very fully in the congressional discussions which will take place when the whole Muscle Shoals situation is before Congress and the country.

THREE OF A KIND.

SO many enthusiastic words of praise come to the MANUFACTURERS RECORD in contrast with an occasional vigorous criticism that we feel justified once in a while in letting our readers see what others are saying. Here are three of a kind received in the same mail.

Mr. J. E. Turner, vice president of The Exchange National Bank, Fitzgerald, Ga., writes:

"The MANUFACTURERS RECORD, under your management, has been for years doing untold good in bringing to the attention of our own people their possibilities and what they should do, as well as our great possibilities to the atten-

tion of other sections, but it seems lately that you are able to make clear to us our duty and you are showing in a more effectual way the South's possibilities."

Mr. P. H. Hanes, president of the P. H. Hanes Knitting Company, of Winston-Salem, one of the country's great manufacturers of underwear, writing from his New York office said:

"I feel that the MANUFACTURERS RECORD, under the leadership of Mr. Edmonds, is doing a great deal for the South, and am very glad to tell you that it will be satisfactory for you to continue my subscription, which you may enter for two years at the special rate of \$10. You can send me bill for the amount when you want it, and I will have check mailed you in payment. With assurances of my highest regards and best wishes, etc."

Mr. John H. Finney, manager of the Washington office of the Aluminum Company of America, writes:

"I have very great pleasure in sending you herewith renewal of our subscription to the MANUFACTURERS RECORD for two years.

"I consider the MANUFACTURERS RECORD the most valuable publication that comes to my office, and get from it new inspiration each week."

IMPORTANT CENSUS OF ALL MANUFACTURING INTERESTS FOR 1923.

THE value of all business statistics depends upon their freshness and reliability. It is especially important therefore that the Bureau of the Census is now engaged in collecting statistics of manufacturers covering the calendar year 1923. These statistics are compiled in accordance with the Act of Congress of March 3, 1919, and the schedules have been prepared after conference with the associations and others interested in the various industries. The schedules were mailed to the manufacturers on January 2 and the Director of the Census is very anxious to publish the statistics at the earliest possible date in order that they may be of the greatest possible commercial value. All manufacturers are urgently requested to forward their reports to the bureau at the earliest possible date, preferably before the end of January. The bureau has agreed to tabulate the results as rapidly as the schedules are received and publish the totals within a few days after the receipt of the last report.

The Bureau has been co-operating very closely with industrial interests and desires to be of service to the country. Manufacturers should in turn show their appreciation by complying with the request of the director to mail reports promptly. If the reports are not made by mail it will be necessary for the Government to go to the expense of sending a special agent to the various establishments. It is hoped that all manufacturers will heartily co-operate and make their reports promptly.

THE SOUTH'S NEED OF A PROTECTIVE TARIFF.

FRANK W. MONDELL, Director of the War Finance Corporation, in a letter to the MANUFACTURERS RECORD expresses his appreciation of some matter recently published, pointing out that a protective tariff is essential to the prosperity of the South and of the nation, and Mr. Mondell adds:

"I appreciate the reference in your article to my remarks made at the meeting of the Southern Tariff Association at Chattanooga. I am of the opinion that no part of the country stands in greater need of a continuation of a protective tariff policy, equitably applied, than does the South. Its continued growth and development must depend very largely on the maintenance of the protective tariff policy."

MORE AND MORE RAILROAD FACILITIES NECESSARY TO PROPERLY SERVE INDUSTRY AND COMMERCE.

PRESIDENT DANIEL WILLARD, of the Baltimore & Ohio Railroad Company, in the course of an address delivered by him on December 13 before the Board of Commerce, Butler, Pa., made some exceedingly impressive statements concerning the needs of the railroads as to increased facilities now and during the next decade. After remarking that since he became president of the company in 1910 there had been spent upon the property for new equipment, facilities and extensions, over \$250,000,000, and that an estimate recently prepared shows that there ought to be expended fully as much more in the next ten years in order to keep the railroad fully abreast of the commercial possibilities of the region which it serves, Mr. Willard said:

"The real problem, however, confronting the Baltimore & Ohio Company and all of the other railroads, is how to provide the additional capital for the new facilities constantly needed for our growing commerce. While the railroads during the present year were able to handle and actually did handle a larger volume of business than ever before—and I believe it may be fairly said that they handled satisfactorily the entire business offered—it would not do for them to rest on the assumption that they are now sufficiently equipped and need not provide for further expansion.

"The Baltimore & Ohio Company is today negotiating for additional freight equipment, and this notwithstanding the fact that over 20,000 Baltimore & Ohio freight cars in good condition for operation are being stored on side tracks because there is no present use for them. We know, however, from past experience that while all of our cars may not be needed at the moment, and while the number of idle cars may increase for some months to come, it is certain to happen in the not distant future that the constant growth of our country will make demands upon all of the railroads, including the Baltimore & Ohio, far beyond anything we have yet had to face, and it is with this knowledge that we are even now negotiating for increased equipment, and are spending millions of dollars for additional facilities, such as elevators, piers, side-tracks, double track, and other facilities of that kind, in order that we may be able to take care of the business that is certain to be offered tomorrow, even if it may not be actually in sight today.

"If the Baltimore & Ohio Company is to do its part in handling the commerce of the country it must be able in some manner to secure roundly at least \$20,000,000 of new capital each year."

President Willard—after remarking that the company could not obtain all such new capital by means of additional mortgages and that of the \$250,000,000 of new capital put into the property since 1910 not one dollar was raised by the sale of stock, but had been taken from earnings or else raised by mortgages—said that he believed if the Transportation Act of 1920 was left in its present form, and if conditions in the country became stable as he thought they would, while conditions abroad became more orderly, he believed the railroads would be able to sell their shares to raise more capital and that unless that could be done the additional facilities required could not be provided. He urged that his hearers use their influence to preserve the railroad law in its present form for further trial.

The president of the Baltimore & Ohio Railroad is absolutely right in his assertion that the railroads will have to provide in very liberal manner more new equipment and other facilities in order to be able to meet the demands of industry and commerce during the next ten years and in this argument he is talking right along the line which the MANUFACTURERS

RECORD has followed for the last fifteen or twenty years.

With the country growing and expanding at its present rate there cannot be any let up in the provision of means for adequately conducting transportation. Mr. Willard perceives this fact clearly, as is indicated by his further statement that he has no doubt that ten years from now a survey of the situation will indicate that the future necessities for enlargement of facilities will be just as great as they appear to be today, and perhaps greater, and will require an equally great expenditure of new capital. Indeed he might have said that they certainly would be greater, for with the addition of fourteen or fifteen millions more to our population, making the total approximately 125,000,000 souls, the railroads will need much larger expenditures in every way in order properly to perform their functions in the life of the land.

DOES LANCASHIRE DESERVE PITY?

THE Manchester, England, Guardian, under the head of "No Pity for Lancashire," says:

"The Baltimore MANUFACTURERS RECORD takes rather a pleasure just now in girding at spinners, and particularly those of Lancashire. They have been told a thousand times, it says, that the only safety for their raw material was a price which would enable the growers to make a living profit. The RECORD continues:

"They fought this price. Lancashire especially fought it unceasingly, and for 100 years has used every means in its power to break down and hold down the price of cotton. No pity whatever should be given to the Lancashire spinners in the desperate condition in which they now find themselves. They sowed the wind year after year and generation after generation, and they are now reaping the whirlwind. If ever there was a short-sighted, narrow-minded, cruel, inhuman policy that prevailed in any great industry as to the policy with which the spinners of Lancashire and of the Continent generally fought to break down the price of cotton to starvation wages for the producers of the South, and for that matter for the producers of India, whose people are, as a whole, probably the poorest on the face of the earth."

"Why cotton should be singled out in this way in connection with the low prices of the past it would be hard to say. Has there ever been a case in which buyers of large crops gave higher prices than the holders were willing to sell at? And what of the boll weevil? Has it had nothing to do with the present scarcity and dearness of cotton?"

We may answer the Guardian's question as to whether buyers of large crops have ever been willing to pay a larger price than the holders are willing to sell at, by saying that so far as we can learn there has never been for any crop produced in any country except cotton such a determined, definite, wilfully vicious effort to break down prices to a point where the growers were compelled to sell regardless of whether their cotton brought a living price or not. No combination of wheat buyers or corn buyers, so far as we know, has ever for a hundred years carried on a persistent campaign to break the price of these crops as has been done by European spinners for a hundred years in seeking to force down the price of cotton.

The Liverpool cotton gamblers and the European cotton spinners, allied with similar interests in this country, backed by the financial power of Great Britain, which has always sought to break the price of cotton to the lowest point possible, have carried on a campaign entirely unlike that carried on by any consumers of raw materials, or of agricultural products of which we have ever heard. It is true that the boll weevil has been responsible for the smaller crops of the last two years, and in that respect the boll weevil has proven a very great blessing to the South as a whole, for it has forced this section into diversified agriculture in which there is far more profit to the farmers and to the South as a whole

than there is in cotton, and it will force the world to pay a fair price for the cotton that is produced.

If the Manchester Guardian will go back, as we have repeatedly done, over the record of conventions and parliamentary actions, and reports to the British Board of Trade for a hundred years, it will find never a solitary word in all that period in behalf of a living price for cotton, but an unceasing effort to break down the price of cotton. 'It will find, for instance, that Sir Charles W. Macara, who has sometimes posed as a believer in fair prices, has frankly admitted the efforts made by him and by the European cotton spinners to break the price of cotton at the time when under Sully's activities it was bringing for the first time in fifty years a living price to the grower.

In an address before 900 cotton manufacturing people of England, referring to that advance Mr. Macara frankly admitted that "the available supply was obviously far short of the requirements of the trade", and so the working hours in the mills were reduced from 55½ to 40 per week for the purpose of accomplishing a break in the prices; and Macara praised the work of the cotton manufacturers in thus breaking the price at that time.

That address was delivered on March 13, 1923, before a largely attended and enthusiastic meeting of the Master Cotton Spinners of Lancashire, and was almost as cold-blooded as was a statement made by Mr. Arno S. Pearse, General Secretary of the International Federation of Master Cotton Spinners and Manufacturers Associations of Europe, in an address delivered at the International Cotton Mission, held in Brazil in 1921. As the representative of the cotton manufacturers of Europe Mr. Pearse ridiculed as a "fantastic idea" the thought that cotton growers in America were no longer willing for their wives and children to work in the cotton fields in order to produce low price cotton. On that point he said:

"We were told on the authority of the President of the Cotton Farmers Union (American Cotton Association) that the American cotton farmer would no more continue to allow his wife and children to work in the fields. With such fantastic ideas it cannot be expected that there will be an increase in the cotton acreage of the United States of America."

Mr. Pearse's thought, coldblooded, inhuman, and unworthy of any reputable man, that it was "fantastic" for American cotton growers to seek to keep their wives and children out of the cotton fields, was in direct keeping with the speech of Sir Charles Macara and with the history of the effort of European spinners for a hundred years to break the price of cotton in America.

One report to the British Board of Trade made more than 75 years ago was to the effect that one of the strong purposes of English cotton manufacturers should be to hold the price of the staple down to the lowest point possible in order to force the American cotton growers to make up by increased production the amount of money which they annually expected to secure.

In the light of such facts as these, and hundreds more could be given, may it not be seriously asked as to whether Lancashire spinners deserve any pity for the plight in which they find themselves in the shortage of cotton? Unfortunately, however, for American spinners, English and German spinners were a little more foresighted early last fall than were American spinners, and bought heavily of cotton while American spinners were holding off. The English and German spinners are thus at a decided advantage from now until the next crop year in comparison with many American spinners.

There have been many reports circulating in England and from England into this country as to the probability of Australia becoming a great cotton producing region, but a copy

of the Cotton Farmer, Australia's pioneer cotton journal, issued from Rockingham, which has come to us, does not seem to indicate that the Australian people are looking for any very rapid increase in cotton growing. There has been, moreover, as shown in the Cotton Farmer, a very strong, rising hostility against the low price of cotton brought about by the efforts of the cotton spinners of Europe.

A speech made in the Queensland Legislative Assembly by Representative Bullock, referred to the large number of children at work in the cotton fields of the United States. While his figures as to the number are probably too large and as to the ages of the children too low, nevertheless, Mr. Bullock emphasized that Australia wanted no such conditions in the cotton industry of that country. In further discussing the subject, Mr. Bullock said:

"It is a shame; I take it that we do not desire to perpetuate that state of affairs here. Better far that cotton should never be crowned 'King of the Burnett' than that the little kiddies who live there should have their lives wrecked and their childhood squandered picking cotton to make profit for somebody overseas, and I hope it will not be very long before this question will be satisfactorily faced and honorably dealt with and that the exploitation of child labor in our cotton fields will become impossible." * * *

In further discussion of the effort of consumers to force down the price of farm products for the benefit of city people, the Cotton Farmer says: "The swindle is impudent enough when it is being worked solely in the interests of people in Australian cities as it is, at least, Australia who benefits from this twentieth century form of slavery; but it becomes callous imposition when the child of the Australian farmer is to be exploited to produce cheap cotton for someone in England. And yet, this is being openly advocated in democratic Australia and governments who preach democracy and communism and nationalism let the exploitation continue." * * *

"Centuries ago the civilized world was shocked at the revelation of factory child slavery, and since then the statute books of nations have been crowded with legislation having for its subject a maintained standard of pay that enabled the father of the child to, at least, provide the necessities of life without its puny efforts. The statute books are searched in vain for similar enactments on behalf of the farmer child. The farmer serves a national purpose in providing food for the nation and the only recognition accorded to him by the public conscience is that it offers no objection to his child and his wife helping him do it."

Perhaps the Manchester Guardian may be persuaded to read this statement from Australia alongside of the statement made by Mr. Pearse denouncing as a "visionary" fallacy the idea of American farmers opposing the working of their wives and children in the cotton fields of the South to produce a cheap and abundant supply of cotton for the mills of Lancashire and the continent.

IMPROVEMENT IN GERMANY.

THE United States Department of Agriculture reports a decided improvement of agricultural market conditions in Germany during the first half of December, as reported by cable. Larger importations are being made of cotton, wheat, rice, flour, lard and bacon. The mark has now been practically abandoned as the basis for foreign trade and contracts are being made on the basis of foreign currency. Reports from Germany also say that due to some improvement in the currency situation farmers who had reaped large crops, which they were withholding from market unwilling to sell for marks, are now more disposed to sell and thus supply the pressing needs of Germany for foods.

SENATOR BRUCE ACTED A PATRIOT'S PART.

WHEN Senator Bruce of Maryland, an old time Virginia-born democrat, voted against his party lash because he felt that his party was yielding to La Follette and other radical senators, he gave an illustration of that kind of independence which should be developed if this country is to be saved from the domination of radicalism. Men are held in the party leash to such an extent that it is lamentable to what extent many of them will go merely for fear that if they have independence of soul, and backbone to vote for their convictions they will be read out of their party, and they prefer their party to their country.

The action of Senator Bruce is in striking contrast to that of a distinguished Southern senator who at the beginning of the campaign in behalf of the League of Nations voluntarily said to the editor of the *MANUFACTURERS RECORD*, in the most pessimistic spirit, "I am afraid our country is doomed. It seems to me there is no hope for it." And when he was asked the reason for this doleful spirit he replied that he was bitterly opposed to the League of Nations, but that he was afraid the party had gone so far in favor of it that there was no possibility of withdrawal.

The writer asked him why, if he felt that the country was in such danger, he did not come out openly and express his disapproval of the League of Nations in the form then proposed, against which he had railed so bitterly. His reply was, that he dare not do so, for in breaking with the party machine his own future would be endangered. He was a man who stood high in the nation's councils, high in his own party, who voluntarily poured out his woes to the editor of this paper in regard to what he felt was the certain ruin of America in being forced into combinations in Europe which he felt meant the doom of our constitutional government, and yet who did not have the moral courage or the backbone, or the patriotism to put to the test and stand for what he believed to be the country's good, but yielded to the fear of the party machine and went with his party.

The *MANUFACTURERS RECORD* has not by any means always favored some of the positions taken by Senator Bruce, especially on the prohibition question; but we believe he deserves an expression of appreciation from every right-minded man who puts the love of his country before the lash of his party, whether he be republican or democrat.

IS GERMANY PREPARING FOR WAR?

A DISPATCH to the Philadelphia Ledger from London states that great interest is being aroused in England by reason of the attempts of would-be buyers of ammunition supplies to purchase very large quantities of rifles and ammunition, and also khaki cloth by the ton. This dispatch states that secret service men in England are convinced that these purchases are being made for Germany, and the correspondent adds that his own personal investigation bears out that statement.

These deals, so it is said, include large credit established in a British bank, the purchase of two steamships and the actual shipment of 250,000 rifles under circumstances that have aroused suspicion in England. Attention is called in the dispatch to the statement that an announcement was made a few weeks ago in London that Germany was arming to the fullest extent of her ability. This was sent out by a semi-official news agency and distributed all over the world, although the Foreign Office of England denied that it had any information on the subject.

No one should for a moment be surprised if Germany should attempt another war. We have always taken the ground that it would do so at the first moment possible, and we have not the slightest doubt that Germans are being

trained whenever and wherever it is possible, in military tactics; for having determined not to pay the reparations, Germany is determined whenever it can have any chance of winning, to bring on another war.

A WISE MOVE.

POLK COUNTY, FLORIDA, is to be congratulated on banishing the open cattle range. The development of the cattle industry in Florida on a safe and sound basis for the raising of good livestock has been greatly hindered by the open range system, for which the cattle grazers to a large extent have persistently fought. Grazing thousands of head of stock on lands belonging to other people, mainly to big lumber companies, has resulted in the maintenance in Florida to a considerable extent of scrub cattle, whereas the state when freed from the cattle tick, as will soon be done, is admirably adapted for the raising of the finest breeds of cattle.

Perfecting Process for Fixing Free Nitrogen.

One of the important steps in developing the synthetic ammonia process of recovering nitrogen from the atmosphere has been solved by the Fixed Nitrogen Laboratory as a result of recent investigations, according to the annual report of the director of the laboratory to the Secretary of Agriculture. This important step is the discovery or development of a catalyst, or chemical agent, which aids in the chemical reaction that takes place in combining hydrogen under pressure with the nitrogen of the air to form ammonia, in which form the nitrogen is available for use as fertilizers.

There are several processes which have been used successfully on a commercial scale for the production of atmospheric nitrogen, but the direct synthetic ammonia process is rapidly assuming the aspect of becoming the most promising one; the principal factor in favor of this process is the reduced cost of production. The report says further:

"The problem involved in the synthetic ammonia process may be divided into two groups, first those which concern the process of making the hydrogen combine with the nitrogen of the air, and, second those which concern the process for manufacturing and purifying the hydrogen-nitrogen mixture employed in the process. The nature of the entire process centers about the catalyst, and depends largely upon its characteristics.

"As far as we have been able to learn, there is no country in the world which has an ammonia catalyst superior to that developed by this laboratory. A method has also been developed for manufacturing this material which gives the necessary chemical control of the product and at the same time makes large-scale production possible. As a consequence we are now in possession of such reliable information concerning at least one type of ammonia catalyst and its manufacture that one of the principal obstacles to the successful operation of such plants as United States nitrate plant No. 1 at Sheffield, Ala., has been removed."

Experimenting for Production of Cheaper Fertilizer.

Anniston, Ala.—In accordance with an order issued by the Alabama Public Service Commission, the Alabama Power Co. of Birmingham is empowered to enter into a contract with the Southern Manganese Corporation of Anniston to supply the latter company with power for a period of six months for the purpose of making experiments for the production of cheaper fertilizer by electro-chemical process.

It is understood that the order of approval carries the proviso that no capital expenditures for special equipment will be necessary on the part of the Alabama Power Co.

\$2,500,000 Louisville Gas Plant Completed.

CAPACITY OF 12,000,000 CUBIC FEET WITH PROVISION ULTIMATELY FOR 60,000,000 CUBIC FEET—FINISHED IN RECORD TIME—700 MEN ENGAGED IN CONSTRUCTION.

The Beargrass gas plant of the Louisville Gas & Electric Co., Louisville, Ky., was placed in operation December 4, the trial run having been made less than six months after the first pile was driven. Built at a cost of close to \$2,500,000 it represents one of the most modern and complete plants of its kind. Upwards of 700 men were engaged in the construction.

Work on the plant was authorized in the spring of 1923. Just east of the city limits on the Upper River Road a site was secured consisting of 100 acres of land subject to overflow from the Ohio River. This necessitated the use of concrete piles for foundations and required that all working floors be raised above extreme high water, or approximately 15 feet above the ground level. Work was started in the drafting room and in the field late in May and on June 2 the first pile was placed.

The buildings include a water gas house, boiler, exhaustor, pump and compressor houses, and a large electrical substa-

The machinery represents the latest developments in water gas manufacture. The generating equipment consists of four 12-foot flat-top carbureted water gas sets furnished and installed by the United Gas Improvement Contracting Co., Philadelphia. All valves, except the regulating steam valves are hydraulically controlled. Each machine is equipped with a separate Sturtevant fan supplied by the B. F. Sturtevant Co., Boston, Mass., and driven by a Westinghouse turbine, supplied by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Chemical control is obtained by use of steam meters, air motors, pyrometers and oil meters.

The water gas machinery is equipped to operate with the Young-Whitwell backrun process, the invention of D. J. Young, manager of gas engineering and operation, Byllesby Engineering and Management Corp., Chicago. There are four 500 horse power Heine boilers, furnished by the Heine Boiler Co., St. Louis, Mo. These operate under a working pressure of 175 pounds. The stokers are Laclede-Christy



GENERAL VIEW OF LOUISVILLE GAS PLANT TAKEN DAY OF TEST RUN.

tion. In addition there is about a mile of railroad track, coal and coke handling equipment and a relief holder of 1,000,000 cubic feet capacity. Building work consisted of approximately 2200 reinforced concrete piles driven by the MacArthur Concrete Pile & Foundation Co., New York City; 10,000 cubic yards of concrete for foundations; 1100 tons of structural steel furnished by the Louisville Bridge & Iron Co., Louisville, Ky.; and more than 1,000,000 brick. The outside brick are smooth red face, and the interior brick are light-colored salt-glazed. The substation and compressor house floors are of red tile; the clinker floor in the generating house is covered with a hard paving block, and the working floors of the generator house is checkered plate. All other floors have a cement finish.

chain-gate type, steam or electric drive. The feed water heater is a Cochrane open heater made by H. S. B. W. Cochrane Corporation, Philadelphia, Pa.

The manufactured gas goes directly from the wash box of the water gas sets to the holder, which is a three-lift type, of 1,000,000 cubic feet capacity, manufactured and erected by the Stacey Manufacturing Co., Cincinnati, Ohio. From the holder the gas passes to a washer cooler manufactured by the Steere Engineering Co., Detroit, Mich. It consists of two tanks, each 8 feet in diameter and 60 feet high, which cool the gas to 80 or 100 degrees. The cooled gas goes to the exhaustors, which pump it through the purifying apparatus and on to the compressors. There are three, two engine driven and one motor driven, manufactured by the

P. H. & F. M. Roots Co., Connersville, Ind. The gas then passes through P. & A. tar extractors furnished by the Western Gas Construction Co., Fort Wayne, Ind.

Liquid purifiers, manufactured and erected by the Koppers Co., Pittsburgh, use a soda solution for removing about 90 per cent of the sulphur from the gas. They consist of two tanks, 13 feet in diameter and 88 feet high. The remainder of the sulphur is extracted in passing through a dry purifier containing oxide of iron and shavings. This purifier was manufactured and erected by the Western Gas Construction Co. From the purifiers the product passes to the metering equipment consisting of a Thomas electric meter and a Hyperbo meter.

From the meters the gas passes to three motor driven compressors by which it is pumped through four miles of 10-inch welded line to a belt line where it is mixed with the natural gas. The compressors and lines are built to carry 1-60 pounds pressure. Three Ingersoll-Rand two-stage, 35-inch by 19½-inch by 27-inch compressors are used, having been supplied by the Ingersoll-Rand Co., Boston, Mass. Each is driven by an 800 horse power synchronous motor manufactured by the Westinghouse Electric & Manufacturing Co. The coolers are of tubular type manufactured by the Henry Pratt Co., Chicago, Ill.

The plant is so situated that coal, coke, oil and other supplies may be brought in by river, but initially no provision to handle materials in this manner will be made. Railroad sidings are provided with space for storing sufficient quantities of supplies to insure continuous operation. All buildings are connected by overhead walkways. The railroad tracks are carried directly over coal and coke track receiving hoppers, located between the boiler house and generator house. The coal or coke passes through these hoppers to crushers and is elevated on a peck carrier to belt conveyors which distribute into the coal or coke bins, located above the boilers and just outside the generator house, respectively. This equipment was furnished and installed by the Link-Belt Co., Philadelphia.

The present water supply is from an 8-inch line connecting with the city mains, and from two deep wells operated by impeller pumps furnished by the American Well Works, Aurora, Ill. The well water is used for cooling and condensing purposes, and the city water for drinking and for the boilers. Two 10,000 gallon storage tanks are located over the coal bunkers. Oil is stored in two 15,000 barrel steel tanks on concrete foundations supported by concrete piles.

The ashes from the boilers and generators are handled in small industrial cars and will be used in filling about the grounds.

A substation is provided to house ultimately six 1000 kva. transformers, three of which are now in service, stepping the current down from 13,000 volts to 4000 volts. They are fed by 13,000 volt lines direct from the company's Waterside generating station. The switchboard consists of General Electric truck type switches to control six compressor motor circuits, one for station light and power, one for plant light and power and four additional circuits which may be used for electrical distribution in the vicinity of this plant. A motor-generator located in the substation and an engine driven exciter in the boiler room furnish excitation for the synchronous motors of the compressors. A bank of 200 kva. 4000/440 volt transformers is located in the boiler room for low tension distribution.

The initial capacity of this plant is 12,000,000 cubic feet, but all units have been so located as to allow for extensions providing for an ultimate capacity of 60,000,000 cubic feet.

The plant was designed by the Byllesby Engineering & Manufacturing Corporation. A. G. Butler, construction superintendent for the corporation, supervised the building of the plant.

Drainage Congress to Meet at St. Louis.

The twelfth annual convention of the National Drainage Congress will be held in St. Louis, Mo., on January 16 and 17 with headquarters at the Jefferson Hotel.

The chairman of the program committee is C. H. Young, president Central States Engineering Co., Muscatine, Iowa, who states that while the dates of the meeting conflict with the Road Congress and the American Society of Civil Engineers, it was felt that under all the circumstances the time selected was most suitable for the speakers secured on the program and for the attendance of the membership of the Drainage Congress.

An outline of the program with the names of the speakers and their topics is as follows:

MORNING SESSION, FIRST DAY.

Address of Welcome to City—Mayor of St. Louis.
President's Opening Remarks—Jacob A. Harman.

Analogy of Work in Various States.

Problems in Minnesota—E. V. Willard, State Com. of Drainage and Water.

Why is Horicon Marsh Drainage called a Failure—E. R. Jones, Agricultural Engineer, University of Wisconsin.

Amount of Work Remaining in Iowa—Q. C. Ayers, Iowa State College, Ames, Iowa.

Report of Amount of Future Work in Louisiana, and the New Orleans Convention—A. T. Dusenbury, New Orleans, La.

Results of Reclamation in North Carolina—Dr. Joseph Hyde Pratt.

AFTERNOON SESSION, FIRST DAY.

Clark E. Jacoby, Presiding.

Drainage Development and Its Relation to Rainfall and Wild Animal and Plant Life—E. V. Willard, State Commissioner of Drainage and Water, St. Paul, Minn.

Adopting the Method of Reclamation to the Economic and Physical Possibilities of the Land—John T. Stewart.

Prospects of Expansion of the Farming Area in Relation to the Outlook for Reclamation—Dr. L. C. Gray, U. S. Agricultural Economist, Washington, D. C.

Will Reclamation as Now Carried on Glut the Farm Market with Improved Methods of Long Term Financing—Secretary Wallace, Washington, D. C.

Relation of Colonization to the Reclamation of Wild Lands—Dr. F. H. Newell, Washington, D. C.

Cost and Cost Finding—L. S. Hidinger, Morgan Engineering Co., Memphis, Tenn.

EVENING SESSION.

President's Address—Jacob A. Harman.

What Drainage Reclamation Has Accomplished—S. H. McCrory, U. S. Dept. of Agriculture.

The Railroads and Internal Waterway Navigation, the Waterways of the Nation—Congressman Newton.

MORNING SESSION, SECOND DAY.

R. H. McWilliams, Presiding.

Crop Production in Peat and Muck Lands as Affected by Control of the Water Table—Prof. G. R. B. Elliott, University of Minnesota.

Fluctuation of Ground Water Table as Influenced by the Nature of the Soil, the Depth of the Drain and the Submergence of the Outlet—Sven A. Norling, Denmark.

Special Benefits of Outlet Drainage—D. R. Jones, University of Wisconsin.

Land Reclamation and Game Refuge Reserves—Chas. H. Young, President, Central States Engineering Co., Muscatine, Iowa.

The Purpose of the Construction of Wing Dams, Dams and Levees in the Mississippi River Valley—Col. Potter or Capt. Chisolm, Mississippi River Commission.

Oil Engine Operation of Dredges and Dragline Excavators—Geo. B. Massey, Consulting Engineer, Chicago, Ill.

Recent Advance in Drainage Legislation and What is Yet Needed—R. B. Oliver.

AFTERNOON SESSION, SECOND DAY.

R. E. Shepard, Presiding.

Our Magazine, Its Purpose and Responsibility to Our Country—James A. King, Editor, National Reclamation Magazine, Mason City, Iowa.

The Railways of the Nation—Sen. Albert B. Cummins, of Iowa. Progress in Mastering the Everglades—Chief Engineer Elliott of the Lake Okechobee Project.

The Policy of Department of the Interior in Regard to Western Reclamation—D. W. Davis, Chief of the Bureau of Reclamation, Washington, D. C.

The Western States Reclamation Association, Its Purpose and Desire for Cooperation—R. E. Shepard, Jerone, Idaho.

The Value of Reclamation to the Railroads—William Sproule, President, Southern Pacific Railroad.

Tract to Be Developed for Residences.

Spartanburg, S. C.—S. B. Ezell of this city plans to develop a tract of 150 acres near the city limits of Spartanburg, expending \$150,000 for grading, sewerage, paving, etc. The initial expenditure will be \$40,000 for the opening of streets and other work, details of which have not been decided. The tract contains some attractive wooded sections which will be utilized as park spaces.

The Romance of Southern Pine.

No. 4—A THOUSAND FEET OF LUMBER.

By EARL DIONNE, Elizabeth, La.

Ask the "Flathead," or sawyer, in the Southern woods how much timber he can saw down in a day and he'll answer you in thousands of feet.

The team or skidder rates its capacity by the thousand feet. The mill man will tell you his plant cuts so many thousand feet a day. When you buy from your retailer in quantity he sells you by the thousand feet.

What is a thousand feet of lumber and what is necessary to produce it?

Visually, you can imagine a billboard running across the front of two ordinary city lots. You can see them daily. Ten feet high by a hundred feet long of surface. There's your thousand feet of lumber.

But the process of making it?

That, mates, in spite of the many times a thousand feet of lumber modern mills turn out daily, is a long tale.

There's financing and skilled intelligence and skilled hands and hard work in every foot of it.

There are three distinct types of logging methods in the United States.

There's the snow logging of the old North, there where Paul Bunion logged, with the men going ghost-like over the miles of trail to their work before dawn of a morning; where the long haul to the river is made by sleighs piled the height of two men with logs and so delicately balanced that a small man can rock the load; the sleighs running over roads of sheer ice, ice made by sprinkling water on the roads at night when freezing takes place quickly.

It may not be a matter that you studied in your school books, but this necessity for water for the roads played a big part in our northern topography.

When Paul Bunion, the legendary hero-logger, started working in that country there were no Great Lakes. Paul needed water for his roads. So he dug the lakes to supply it.

You can, of course, take that story as you will. I have it direct from an old lumberjack who says he knew Paul.

There were heroes in those days. It took a full-sized man to spend a winter in a logging camp, and it took a still harder one to work the drives down river in the spring when a half billion or so of logs tried to tear the river banks down.

It was "ride 'em, Dicky Doyle," as a two-hundred pound, cat-footed man spun a half sunken log across a dangerous bit of water; and it was "jump in boys, there's no sun-dogs around to bite you," at the crack of day at the river bank with the logs hung up mid-stream.

Such were the men who started the big logging game in America, the progenitors of our timber men of today, and the stamp of their heroic blood is on the sawmill man of the West and South, where they and their sons migrated.

The second type of logging is the donkey engine method of the West Coast, giant trees and giant power.

The third distinctive type is the railroad and skidder, or slip-tongue cart, method of the South.

The slip-tongue cart has been succeeded in the big plants with the skidder, and as the negroes say, "them skidders sure do make a pine log behave itself."

The first step in the getting out of this timber, in the producing of the thousand feet of lumber, is to run the railroad out through the timber.

About every five hundred yards the spurs push out from

the main line, and as each spur is cut clean it is taken up and laid again further on.

Then comes the sawyers, the "flat-heads," and they mow a windrow of trees along the cutting line.

After them the skidder moves its ponderous self along the spur, anchors with cables, and is ready for work.

The modern skidder has four lines, or cables, running out into the woods, each cable with a lighter cable making an endless chain, or "re-haul."

Tongs of steel are attached to the skidder lines and all four lines operate at once, and the woods are full of shouting men and flying tongs and plunging sixty foot pine logs.

Then the clatter ceases, the logs are along the track, the skidder creaks on, and in its place is another steel giant, the loader.

Cumbersome it looks but its steel fingers are alive with precision and skill and it swings and swings, its tentacles reach down, the biggest of logs goes into the air like a match, and drops into its place on the car like a cigar placed in a box.

Ten, fifteen, twenty carloads are finished and a snorting switch engine hooks them together and brings them to the main-line where another engine, whose particular job it is to travel that main-line, carries them on to the mill.

A splash in the pond, a harrying across with pick-poles, a ride up the endless "bull-chain," a great saw dips, the logs are cut into shorter lengths, then on to the carriage that, traveling with the speed of an express train back and forth, takes the log through the big saw that cuts it into boards and timbers and cants.

Then it's the cants through the gang edger and the rest of it through the small edger, down the live rolls, over the trimming chains where little dainty saws drop delicately down to touch the rough ends and make them true.

Then it's to yard and dry-kilns; by "dolleys" to the planer room where ten or twenty machines smooth and size and make the boards into the finished product we want in our home.

That's all there is to it, boys, except the loading on the cars and the claims at the other end if the boards haven't been cut right.

A thousand feet of lumber.

In that thousand feet are work and heart-aches and bruises and clashing of giant machinery and keen minds interlocking the intricacies of an international business.

It takes eight or nine ordinary average logs, usually about three trees, to make a thousand feet of lumber from Southern pine forests.

You will pay about \$10 for that thousand feet of trees standing in the forests today.

It's the lumberman's job to buy those trees, to survey the land, to run the tracks, and then to put them through the various processes named, and then to place the resulting boards at their marketing place, maybe a thousand miles away, at a cost that will be under a fluctuating market.

He doesn't know what that market will be, all he knows is that he must keep his costs down and trust in the Lord or a World War or a Japanese disaster to net him a profit.

He must be timber estimator, surveyor, machinist, logging economist, railroad man, mechanical engineer, grader, fire insurance specialist, bookkeeper, high-power salesman and

And for years, b'gosh, the people at large, you and I, have been hollering our heads off at him for a vandal and telling expert traffic man.

him in the same breath that he ought to take the place of an Almighty Creator and put the trees back.

How we, after we ourselves have used this timber, can so twist the argument as to claim it is the duty of one industry to replace what we have taken as a whole is a masterpiece in the realms of polemics.

We hired him to tear the trees down, now in place of trying to force him to put them back, let's try hiring him again.

Make it worth his while in fire control assistance and reasonable taxation and this expert in timber will see that we have a supply forever.

And the great, glorious, scintillating, ever present beauty of the whole thing is that we have the best reforestation possibilities in the South of any place in America.

The mild climate allows the growth, it is native to our soil, and fires are easily controlled.

More than that, fire does not destroy Southern pine. You cannot burn down a sound, un-scored Southern pine tree. In the North, fire in a few hours can lay waste a county; in the South all it will burn is the debris, unless we remember that it will kill the little pines just popping their heads out of the grass.

And that is why we must prevent the fires.

Fire control is the first step therefore in reforestation.

Lowering and stabilizing of taxes on cut-over land is the next step, as this will make timber growing attractive to capital.

No land owner cares to carry large tracts that may be assessed at \$3 an acre this year, then jumped to \$6 next year by a new assessment board.

Life thataway is too uncertain.

But this is the big point—land doesn't care who owns it and once we straighten out our taxes, if you and I will see that our Southern forest land is protected from fire, Old Lady Nature will cover that land with new forests whether it is owned by a lumberman or a dentist.

Talk fire prevention.

But cut the sob stuff, the "ain't it a pity" style of conversation.

Before us right now are two recent clippings of this variety, one headed, "Lumber Waste Piles Up in Year—More Than Four and a Half Billion Feet Go into Kitchen Stoves;" and the article states that 4600 million feet of lumber is cut into box and crate material yearly and that after this is used it is scrapped and—horrors—used to build fires.

In short, after inferior lumber, which is the kind used, is made into boxes, used by a factory to case its goods; after it fulfills its destiny as a safeguard for the shipping of the necessities of our life, taken apart, its usefulness ended, the sobs go up because it then is put to the only purpose it is finally good for.

For the love of the well known Mike, Mr. Newspaper Man, what else should be done with it?

Here's the other article, headed, "And Still Rents Go Up."

It states that enough lumber will be used in the United States this year to build and furnish a row of five room houses which, placed fifty feet apart, would reach from New York to Seattle, down to San Francisco, from there to New Orleans, and back again to New York.

The article also quotes a statement to the effect that the railroads use 125,000,000 ties a year, and its final comment is that this is another of the many causes why our forests are vanishing.

They are vanishing in a good service.

Our transportation and our homes have made America what it is, and we know of no nobler destiny for a forest than to shelter a contented people and to give them safe and economical transportation.

The ordinary five room house uses from 15,000 to 20,000 feet of lumber. It is a tribute to the lumber industry that it can be dependend upon to furnish the tremendous amount of building material that the article indicates.

The magnitude of the industry could be shown in no better way, its immense resources, its clever distribution, its ability to perform its duty.

In no better way could be visualized the millions of people supported by it, the homes it makes happy, the profits it gives railroads, the churches, the school houses, and the good roads and contented communities it builds.

A government bulletin says that we use twenty-five billion cubic feet of lumber a year.

It also states that we produce now in young growth six billion feet annually, but that fire protection alone will give us an annual growth of fourteen billion cubic feet, and that wise tax laws and management of land for continuous growth will make up the deficit. ?

But to do this is a job for more than one class of people.

A tramp asked a hard-faced lady for a bite to eat.

"Certainly," she said, "if you will cut that wood by the barn, clean up the wood-shed, sweep the front porch, take out the ashes, mow the lawn and sprinkle the garden."

"Lady," he cut in as he turned away, "I'm just a hobo. I ain't your husband."

The lumberman is just one of us. He cannot do everything.

Let's split the work.

(To be continued)

Contracts for Sewers to Cost Nearly \$350,000.

Bluefield, W. Va., December 28—[Special.]—Contracts have been awarded by the directors of this city for the installation of 16 miles of storm and sanitary sewers. The lowest bidders on the various classes of construction ordered were: Pace Construction Co., Roanoke, Va., for ditching; Charles A. Haggerty, Webster, Mass. for construction of concrete box culverts; J. R. Vaughan & Co., Roanoke, Va. for construction of sanitary and storm pipe sewers. The total amount of contracts made for this work is \$349,775 or \$225 less than the amount appropriated. Work on the installation of the sewers is to be started early in January.

In connection with the tentative pavement construction program for 1924, the city directors have adopted a resolution ordering the city manager to furnish each utility operating over or under the streets included in the program with a list of such streets, instructing that the underground work be completed as soon as possible so there may be no delay in construction of the pavements.

There are 34 streets which call for new pavement on certain sections or for the entire length, and six important streets are to be repaved in part.

Plan 80-Room Addition to Manavista Hotel at Cost for Construction of \$225,000.

Bradentown, Fla.—Capitalized at \$250,000, the Manavista Hotels, Inc., has organized to take over the present Manavista Hotel here and build an addition of 80 rooms, giving the improved hotel a total of 150 rooms. When the proposed addition has been completed, the present hotel will be improved at an estimated cost for all construction work of \$225,000. The new addition will be four stories, of hollow tile and stucco, and it is hoped to begin construction early in 1924.

Officers of Manavista Hotels, Inc. include George R. Wallace, president; Wallace Tervin, vice-president, and D. O. Norfleet, secretary-treasurer, all of Bradentown.

English Cotton Industry in 1923—Chief Events of the Year.

SHORTAGE IN SUPPLIES—COTTON FAMINE IMMINENT IN 1924.

By Frederick W. Tattersall, of Manchester.

During the greater part of the past year the cotton industry in Lancashire has been in a state of severe depression, but towards the close there has been a welcome improvement, and during the last couple of months more business has been done than in any similar period for a long time back. An event of importance has been the remarkable rise in values. Raw cotton rates are over 50 per cent dearer than in the middle of last summer.

The position of affairs with regard to supplies has become very serious and there is a danger of a famine in 1924. Manufacturers of cloth have had a very trying experience as it has been quite impossible to secure profitable prices and many firms have reported big losses. Spinners of yarn have also done very badly, especially producers of the coarser counts. Owing to the demand being inadequate a large amount of machinery has had to stand idle. Numerous weaving sheds have been stopped and all producers of piece goods have had to allow looms to be at a standstill. In the mills spinning yarns made from American cotton, organized short time has been in operation during the greater part of the year. Fortunately there has not been any labor trouble, but the operatives have suffered owing to the large amount of unemployment and under employment. No wage question of importance has arisen and the relations between the employers and the trade union officials continue to be of a friendly character.

Manufacturers' Unsatisfactory Position.

In the Manchester market for cotton cloth during the year there have been more sellers than buyers. Customers, therefore, have been able to purchase on very advantageous terms. Although the situation has recently improved, on most occasions buyers have been able to secure goods at figures which show a loss to the producer. Pressure for orders always prevails when looms are standing idle for want of work, as manufacturers are eager to run more machinery if at all possible. It must also be remembered that when only half the looms in a shed are running the standing charges are relatively heavy to the output.

The slack state of affairs has been almost entirely due to the insufficient demand from foreign markets. Lancashire depends upon outlets abroad to take off in normal times 80 per cent of the production of the machinery. Our chief customers of course are in the East, the biggest quantities being sent to India, China and the Near East. The reduced offtake compared with pre-war years is accounted for by high prices. Manufactured cotton goods are three times dearer than in 1914. On the other hand the produce of countries abroad is only bringing slightly higher prices than in pre-war times. As a consequence therefore, the natives in the East and Far East are not in a position to purchase the same quantities of manufactured goods and we are exporting only about 60 per cent of the amount shipped in 1913-14.

European countries are important customers to Lancashire, and the disturbed political situation has checked trade with those markets, but the most serious aspect of the unsatisfactory situation in Europe is the lessened demand from that part of the world to Eastern countries for agricultural produce. It will, therefore, be understood that in India, China, Egypt, and also South America, there has only been a limited demand for cotton cloth. We want European countries to

take more grain, jute and tea from India, similar produce from China and larger quantities of coffee from South America.

A feature of the year has been the increased trade with the United States, exports for the 11 months ended November being 160,269,800 square yards against 86,929,400 square yards in the same period of 1922.

It must be remembered that although in quantity we are exporting on a much smaller scale than in pre-war days, our customers are spending even more money on cotton cloth than formerly. This statement is confirmed by the following comparative table of exports, the figures being given for the eleven months ended November for 1913 and the two last years:

	Yards	£
1913	6,544,866,100	90,292,766
	Square Yards	
1922	3,820,659,000	130,691,829
1923	3,818,203,700	127,777,348

Although the consumption at home of cotton goods made in Lancashire is in normal times only 20 per cent of the output this is an important section of the industry as the cloth is of higher quality than that sent abroad. During most of the past year the output of goods has only been about 65 per cent of the full capacity of the machinery. The balance between shipping and home trade, therefore, has been disturbed, and at the present time it is estimated that 70 per cent is exported and 30 per cent kept at home.

The demand in cloth for home consumption last spring was fairly healthy, and the short spell of hot weather just after Whitsuntide resulted in an active movement in light fancy materials. The summer as a whole however was very disappointing and some of the wholesale establishments and many retailers were left with rather large stocks of summer goods. In the making up trade, business has not been satisfactory. Buyers have been in the mood to purchase from hand to mouth and it has been difficult for most firms to obtain profitable business.

Up to a couple of months ago manufacturers of cloths suitable for home use reported a dragging demand, but latterly there has been a considerable improvement. Orders on a freer scale have been forced out by the upward movement in prices. Retailers and distributors have expected makers to give them the advantage of cheap stocks but these have been reduced and there are now fewer opportunities of securing supplies, except by paying full market quotations.

Spinning Section Deplorable.

At the beginning of 1923 spinners of yarns made from American cotton were only working 35 hours a week instead of the usual 48. In January there was some improvement in trade and organized short time in the mills was abandoned. The better state of affairs however was short lived and in March the American spinning members of the Masters Federation decided to cut down production by 50 per cent. Concerted action of this character was continued up to the end of November when as a result of a further ballot the necessary majority in favor of continuing short time was not obtained. All the mills are not running full hours but it is estimated that the output is about 75 per cent of the full production.

There has been a steady improvement in the position of factories producing yarns made from Egyptian cotton. Dur-

ing the summer business broadened and since then the all round demand has been much healthier. Three or four months ago spinners in this section began to run full time and there is practically no unemployment amongst the operatives in Bolton and its district where fine yarns are produced.

Spinners have been adversely affected by the falling off compared with 1922 in the demand from abroad. The following table of shipments is of interest, the figures given showing the exports for the eleven months ended November in each year:

	Pounds	£
1913	192,968,400	13,751,785
1922	189,509,200	24,779,794
1923	133,883,000	19,318,073

Labor Matters.

The wages agreement between the employers and the work people which was in operation at the beginning of 1923 provided for no further alteration in list rates before May. A few weeks before the agreement expired the trade union officials suggested to the masters that the agreement should be extended for twelve months without any change in list rates. Several joint conferences took place and fresh terms were arranged which provided for rates of wages to be unaltered until January 25, 1924. After that date the employers will be at liberty to take whatever action they think fit on giving one month's notice. The operatives' organizations however will not be allowed to make an application for a general advance in wages before September 25, 1924.

Empire Cotton Growing.

The failure of the American cotton crop for the third successive season has resulted in more attention than ever being centered on cotton growing in the British Dominions, and fresh projects are being formulated in numerous directions. Ten years ago when the material was in the region of 7d a pound it was only possible to grow it on an economic basis in a few countries.

It is now of course a practical proposition to produce cotton in numerous quarters when the price is over 20d per pound. The Empire Cotton Growing Corporation is doing good work. Further progress has been made in Uganda and it is estimated that the yield for this season will be about 100,000 bales. In Nigeria the possibilities are considered to be great, and the labors of the last few years are beginning to bear fruit. The prospects in Nyasaland are also favorable. Experiments of an interesting character are now taking place in South Africa. So far as climate and soil are concerned the possibilities in Australia are most encouraging, especially in Queensland and New South Wales. The State Governments are enthusiastic on this matter, and there is every likelihood of increasing quantities of cotton being received from that Dominion in the near future.

Prospects.

At the beginning of 1924 most cotton spinners and manufacturers in Lancashire are in a more optimistic frame of mind with regard to trade than for a long time back. The depression has lasted nearly three years and a swing of the pendulum is undoubtedly due. Dealers in cotton goods at home and abroad have allowed stocks to run down very low and supplies need replenishing. Prices of course are on a very high level and it remains to be seen whether a really large business can be done at current rates. The fact must be placed on record however that demand during the last couple of months has been decidedly healthier than in the middle of the summer when values were on a much lower basis.

Although great efforts are now being made to produce cotton on a bigger scale it may be several years before the new projects develop to a sufficient extent to affect total supplies.

In the opinion of some authorities there is no probability of farmers in the United States producing an output in any season of more than about 11,000,000 bales. Lower prices in the near future are very improbable and it is much more likely that values will be distinctly higher in 1924.

Building Southern Power Steam Station at Duncan, S. C.—Mountain Island Station in Operation.

William S. Lee, consulting engineer of the Southern Power Co., Charlotte, N. C.; advises the MANUFACTURERS' RECORD that its power station now building near Duncan, S. C., will be known as the Tiger Steam Station. Various contracts for machinery and construction have been awarded or are being awarded. The company has purchased two 18,750 K. V. A. steam turbines manufactured by the General Electric Co. of Schenectady, N. Y., and Stirling type boilers made by the Babcock & Wilcox Co. of New York.

This plant will be rushed to completion and is expected to be put in operation in the early fall of 1924. It will not be devoted to any particular service but used in connection with the Southern Power Co.'s system.

Relative to the Mountain Island station on the Catawba River about twelve miles from Charlotte, which belongs to the Southern Utilities Co. of that city, Mr. Lee states that the station will be used to supply power on the Southern Power system, a good deal of the power also to be furnished to the Southern Utilities Co. The plant is about complete and is now being put into operation. Its installation consists of four 18,750 K. V. A. generators manufactured by the Allis-Chalmers Manufacturing Co. of Milwaukee, Wis., and driven by four single runner vertical type water wheels manufactured by the S. Morgan Smith Co. of York, Pa. There are three phase step-up transformers of the same size as the generators made by the General Electric Co. Bulkhead gates, which are of heavy type, were furnished by M. H. Treadwell Co. of New York.

Over 14,000 Carloads of Apples Shipped from One West Virginia County.

Charlestown, W. Va., December 29—[Special]—The entire apple crop of Jefferson County, since all shipments have been made, is estimated by growers here to have been about 500,000 barrels. The belief has also been expressed that approximately 25,000 barrels went to waste in the orchards because of the difficulty encountered in securing enough laborers and because of low prices for bulk apples.

The total shipments from the county were estimated to be about 14,150 cars and there is still left in storage in this section approximately 65,000 barrels. The crop was the largest in the history of the country, orchard men have declared, and good prices were obtained for the apples during the early part of the season.

Miami Beach to Vote on \$307,000 Bond Issue.

Miami Beach, Fla.—In order to carry out a part of the improvement program for 1924 which has been approved by the city council, an election on a bond issue of \$307,000 has been called for January 21. Improvements contemplated from the proceeds of this issue include: Extending waterworks system \$100,000; paying city's share of cost of sanitary sewers, \$50,000; paying city's share of cost of storm sewers, \$20,000; building bridge over Collins Canal on Meridian avenue, \$13,500; building concrete bulkhead, \$17,500; park improvements, \$25,000; fire alarm system and erection and equipment of fire station, \$40,000, and paving streets, \$40,000.

Total of Southern Construction and Industrial Activities for 1923 Breaks Nine Year Record.

The South has had another year of great activity in building and industry. News items published in the DAILY BULLETIN and in the construction department of the MANUFACTURERS RECORD reach the high total of 57,844, an increase of 250 over 1922 and the greatest number in any one year since 1914.

Covering as they do every phase of industrial development, road and bridge construction, the building of dwellings, hotels, apartment houses, churches, schools, office buildings and similar structures as well as including announcements of the formation of new financial corporations and the voting of bond issues by towns, cities, counties and states, these news items serve as an accurate barometer of Southern prosperity and progress.

It is necessary to go back for a period of nine years to find as large a total as for the year just ended. In 1914 there were 59,202 items published compared with 57,844 for last year. In 1920 the total number was 50,823 and in the following year 47,595 notices appeared, compared with 57,592 items in 1922.

In the month of December just past, 3915 items were published as compared with 3902 items for the first month of the year. March stands first for 1923 with 6178 items, and May holds second place with 5577 notices. November construction is third in number, the total for that month—normally marked by declining activity due to seasonal conditions being 5567, but 10 less than the May total.

Particular encouragement as to future activity is to be gathered from the publication of so large a number of items during November, and it bears out indications from other sources of the tremendous amount of new building started that month. November also set a new high record in the valuation of contracts awarded and building permits issued.

The wide scope of these developmental activities is clearly shown by a study of the classifications making up the summary herewith. Construction of roads and streets is represented by 8161 items for the year placing this class first in the list. This compares with 7539 notices, the 1922 total, and with 4601 items representing such work reported during 1921. The construction of bridges, culverts and viaducts is keeping pace with road work as indicated by the publication last year of 2689 items.

Promotion of miscellaneous enterprises in wide variety is represented by 4784 items, placing this class second only to road and street work. Included are the developments of big hydro-electric and steam-electric plants; in many parts of the South industrial progress during recent months has been so rapid that the demand for power is far greater than the available supply. Public garages, waterfront improvements by municipalities, factories in large number and of many kinds, are represented in this classification, and the total gives evidence of the well rounded forward movement in practically every line of activity and section of the South.

Dwelling construction is a prominent feature of the program in 1923 as for the past three years. In the 12-month period a total of 3324 such notices were published. This total is the more impressive when it is considered that because of space limitations only dwelling projects involving the expenditure of \$10,000 and over are included. Were all the dwellings costing even \$5000 and over reported the total would be tremendously increased, since careful surveys show that approximately 50 per cent of the valuation of construction is for residential purposes.

The following table shows the Southern construction activity by months during last year:

	Totals for Dec.	Totals for January Dec. (Inc.)
Industrial Developments		
Airplane Plants, Stations, etc.	2	14
Bridges, Culverts, Viaducts.	185	2689
Canning Plants	3	169
Clayworking Plants	12	131
Coal Mines and Coke Ovens	17	428
Concrete and Cement Plants	5	86
Cotton Compresses and Gins	10	249
Cottonseed Oil Mills	1	59
Drainage and Irrigation	11	169
Electric Light and Power Plants	57	892
Fertilizer Plants	0	80
Flour, Feed and Meal Plants	9	182
Foundry and Machine Plants	12	253
Gas and Oil Developments	67	978
Ice and Cold Storage Plants	36	346
Iron and Steel Plants	0	21
Land Developments	116	1969
Lumber Enterprises	36	627
Metal-Working Plants	3	154
Mining	29	274
Miscellaneous Construction	47	562
Miscellaneous Enterprises	350	4784
Motor Cars, Garages, Tires, etc.	97	1473
Railways and Street Railways	2	100
Railway Shops, Terminals, Roundhouses, etc.	7	57
Road and Street Construction	523	8161
Sewer Construction	63	1007
Shipbuilding Plants	0	9
Telephone Systems	15	202
Textile Mills	19	574
Water-Works	82	1116
Woodworking	32	472
	1846	28,287
Building		
Association and Fraternal	37	429
Bank and Office	43	705
Churches	125	1471
City and County	71	723
Dwellings	240	3324
Government and State	14	145
Hospitals, Sanitariums, etc.	53	553
Hotels and Apartments	124	1479
Miscellaneous	69	549
Railway Stations, Sheds, etc.	10	146
Schools	230	3192
Stores	116	1549
Theaters	7	156
Warehouses	31	413
	1170	14,834
Financial		
Corporations	98	1120
New Securities	312	4297
	410	5417
Machinery Proposals and Supplies Wanted		
	376	7726
TOTAL	3804	56,264
Fire Damage		
	111	1580
	3915	57,844

TOTAL ITEMS BY MONTHS IN 1923

January	3992	July	4766
February	4292	August	5311
March	6178	September	4294
April	5072	October	4166
May	5577	November	5567
June	4804	December	3915

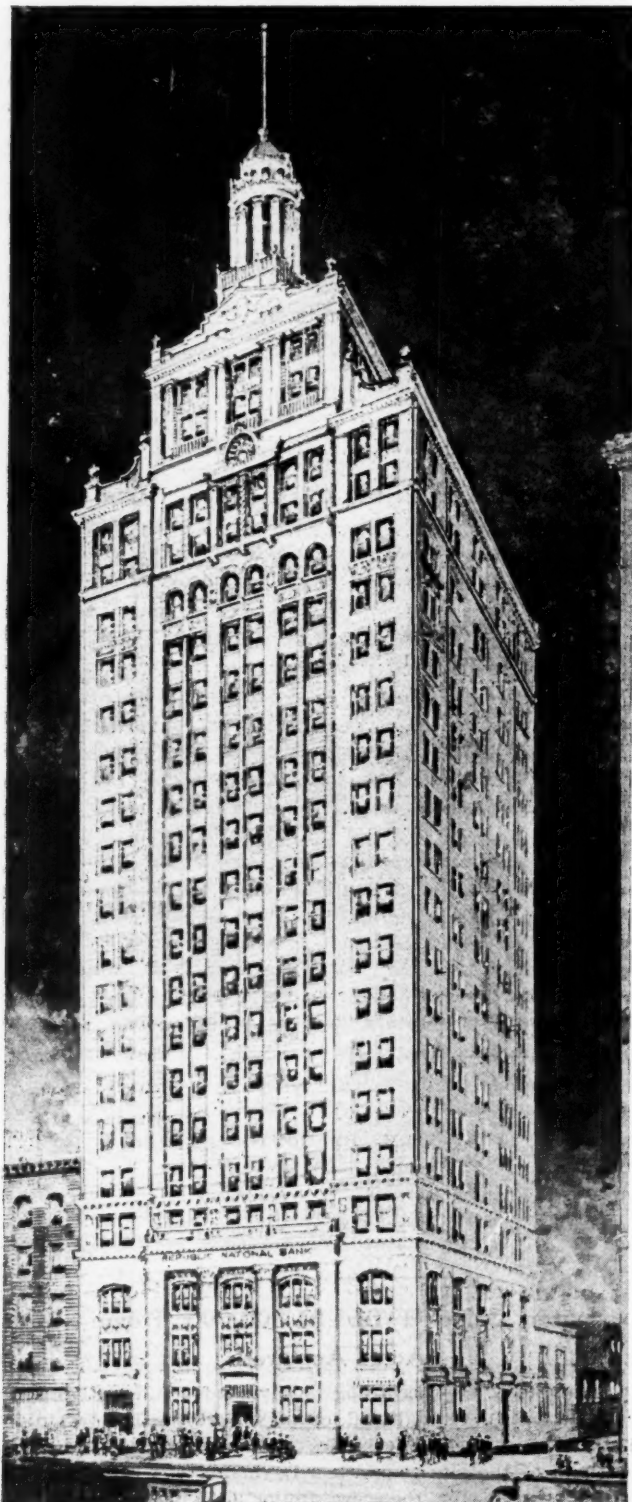
Lexington Selected for \$1,000,000 Home—300 Acres Acquired.

Lexington, N. C.—According to advices from J. D. Tunison, Washington, D. C., national counselor of the Junior Order of United American Mechanics in the United States, and chairman of the site committee, Lexington has been selected as the location for the new Junior Order orphanage and home which will be erected at an ultimate cost of \$1,000,000. The site contains 300 acres and is located on the Winston-Salem Southbound Railway about three miles from Lexington.

It is stated that the proposed home will involve an initial expenditure of \$500,000 and will provide accommodations at first for 500 orphans. Actual construction is expected to begin in the spring.

\$1,500,000 Bank Building for Dallas.

Preliminary plans have been completed and it is expected that bids will soon be invited for the erection of the new \$1,500,000 building to be erected at Dallas, Tex. for the Republic National Bank and the Republic Trust & Savings



TO BE ERECTED AT DALLAS FOR REPUBLIC NATIONAL BANK AND REPUBLIC TRUST & SAVINGS BANK AT COST OF \$1,500,000.

Bank. The building will face 96 feet on Main street and 100 feet on Exchange place, rising to a height of 20 stories and be topped by a 50-foot tower.

It will have a basement and sub-basement and will be of fireproof construction, with a steel frame and gray greenish

granite base. Above the base, the Main street and Exchange place sides will be faced with natural stone, while the court walls will be faced with stone-colored brick or terra cotta. Basement space and the first and second floors, with the mezzanine, will be devoted to the use of the bank and trust companies. Floors of the lobby and main banking room will be of imported travertine inlaid with colored marble, while the wainscoting and pilasters in the elevator lobby will be of black and gold marble.

All vaults will be located in the main basement and all mechanical equipment, including heating plant and other facilities, will be in the sub-basement. The building will be served by five high-speed elevators. The seventeen floors immediately above the banking quarters will be divided into offices, the purpose of the officials of the bank and trust companies being to arrange the twentieth floor as a dining room, and for rest and recreation space for officials and employees of the banks.

C. D. Hill & Co. of Dallas are the architects for the building. W. O. Connor is president of the Republic National Bank and chairman of the board of the Republic Trust & Savings Bank, of which Wirt Davis will be president, Leslie Waggener, vice-president, and Percy Davis, treasurer.

New \$1,000,000 Viaduct Formally Opened at Atlanta—Over Year Required to Complete.

Atlanta, Ga.—Outlining the important position the new \$1,000,000 Spring Street viaduct, which required more than a year to build, is to occupy in the development of Atlanta, Mayor Walter A. Sims a few days ago accepted it for the city and gave the signal for its formal opening. He expressed appreciation of the work of all those who were responsible for the building of the viaduct, and appealed for co-operation in other great public improvements for Atlanta. Former Mayor Key, under whose administration the bond issue was floated for its construction, outlined the history of the project and paid tribute to the men who were instrumental in building it.

As previously detailed in the MANUFACTURERS RECORD, the viaduct has a length of more than a half mile, spanning the main line tracks of the Nashville, Chattanooga & St. Louis, Seaboard Air Line, Southern, Louisville & Nashville, and Central of Georgia railroads, beside the freight terminals of the Central of Georgia, the Nashville, Chattanooga & St. Louis and Seaboard Air Line. It has a clear 60-foot roadway.

The structure was designed by Robert & Co., Inc. of Atlanta, and Harrington, Howard & Ash of Kansas City, Mo., acting as associate engineers. Construction contracts were handled by the Nichols Contracting Co. of Atlanta and the Virginia Bridge & Iron Co. of Roanoke, Va.

Contract for First Unit of West Virginia Capitol—Office Structure to Cost Over \$1,000,000.

Governor E. F. Morgan of Charleston, W. Va., chairman ex-officio of the Capitol Building Commission, wires the MANUFACTURERS RECORD that contract for erection of the first unit of the \$5,000,000 State capitol has been let to George A. Fuller Co. at their bid of \$1,030,000.

This unit will be 290 by 59 feet, with a wing 71 by 12 feet, of stone and steel construction. Cass Gilbert of New York is the architect.

In addition to the general contract, other awards include heating and ventilating for which James McRea of Baltimore received contract at \$39,634, and at \$27,822 for plumbing. Contract for electrical work was awarded to the Eastern Electrical Construction Co. of Philadelphia at \$20,509, and for elevators to the Otis Elevator Co. of New York at \$18,235.

The main office of the Fuller Company is in New York.

French Coal and Coke Operations in the Ruhr.

According to official figures submitted to the French Chamber of Deputies, France obtained 3,950,000 tons of coal from the Ruhr district since the ending of the passive resistance, up to December 18, also 143,000 tons of by-products and 40,000 tons of mine timber. The Bankers Trust Company, of New York, is advised by its French Information Service, that the above deliveries are valued at 410,000,000 francs.

They were shipped through the work of special supply units organized for delivery purposes by French engineers and operating under the protection of French troops. In October 72 of these units were in service. Supplies amounting to 1,265,000 tons of coal and 810,000 tons of coke are on hand awaiting delivery through this organized service and will be handled at the rate of 10,000 tons of coal and 6000 tons of coke daily.

During the past three months France has been operating certain Ruhr mines on her own account from which she is obtaining 11,300 tons of coal and 8800 tons of coke, daily. Some of these mines will be relinquished to their German owners under the recent Franco-German agreements.

Will Build \$250,000 Hotel at Huntington.

Huntington, W. Va.—Plans are being made by W. H. Meredith of this city to begin work in the spring on the Park Tower Hotel here to cost about \$250,000. The building will be ten stories high and will contain over 200 rooms. Foundations for the structure have already been completed and it is the intention of Mr. Meredith to award contracts early in the new year.

In addition to the guest rooms, there will be a lobby, lounge, mezzanine, conservatories, sun parlors, flower rooms, cafeteria, ball room, roof garden and showers. A portion of the first floor will be devoted to shops. Levi J. Dean of Huntington is the architect.

Architects Selected for Memphis Schools—New Buildings and Additions to Cost \$500,000.

Memphis, Tenn.—At a recent meeting of the board of education here, architects were selected to prepare plans for the erection of a new \$200,000 high school building in North Memphis; a \$200,000 negro industrial high school, and additions to the Riverside and Cummings schools to cost \$50,000 each. Pfeil & Awsumb were requested to prepare

plans for the North Memphis school and Regan & Weller for the negro industrial school, while Anker F. Hansen was chosen for the Riverside addition and Hubert T. McGee for the Cummings addition, all local architects.

Details relative to the new schools have not been determined, except that the two additions will each contain six rooms.

\$700,000 Generating Unit as Addition to Gorgas Steam Plant of Alabama Power Company.

Birmingham, Ala.—Authority has been granted the Alabama Power Co. of this city by the Alabama Public Service Commission for the construction and equipment of an additional generating unit to the Gorgas steam plant on the Warrior River to cost about \$700,000. This addition will include another 20,000 kilowatt steam turbine electric generating unit, with necessary boilers and machinery.

Delivery of the new generator is expected next May and the company's engineers plan to have it in operation by August.

The Gorgas plant was recently purchased from the government at a cost of nearly \$3,500,000, and with the completion of the projected unit will have a capacity of 70,000 kilowatts or 94,000 horse power.

The commission has also approved the sale of the public utility properties in Calera, Ala., to the Alabama Power Co., these properties consisting of an electric distribution system, with franchises, contracts, etc.

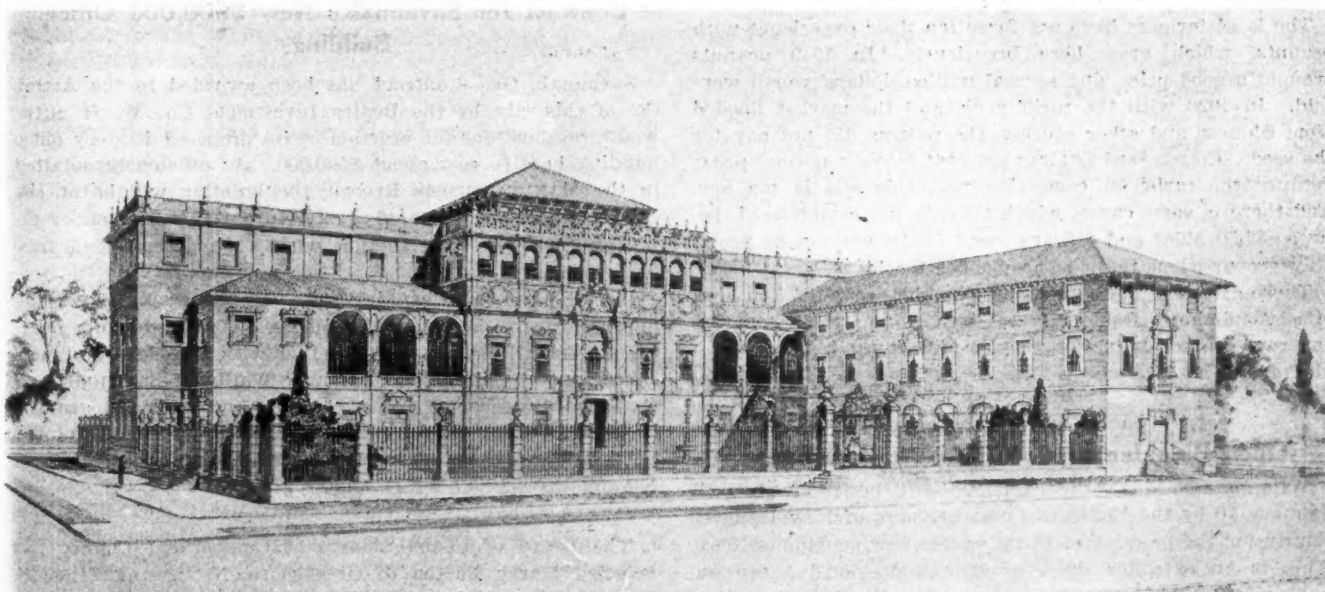
Soon to Invite Bids on First Unit of Houston's \$750,000 Library.

Houston, Tex., December 29—[Special.]—Bids on the first unit of the new Houston public library will be asked early in 1924. Plans are now being perfected by William Ward Watkin and J. M. Glover, Houston architects, working as associates with Cram & Ferguson of Boston.

While proposals will be asked on only the right wing of the building, to cost about \$200,000, plans are being drawn for a structure to cost \$750,000. Further additions are to be made as the need arises and funds are provided.

The building will be of stucco with stone trimming and tile roof.

Bonds for construction of the first unit were voted by the city 18 months ago, and an entire block at Smith street and McKinney avenue has been bought for the building.



\$750,000 PUBLIC LIBRARY TO BE ERECTED AT HOUSTON, TEX.

Mississippi Democrats Appeal to Democrats in Congress to Protect Farm Products.

By CHARLES E. FOOTE, Publicity Specialist, Chamber of Commerce, McComb, Miss.

New and unusual sentiments appear to be entering the mentalities of some of the most intelligent of the really thinking men of Southwest Mississippi. The change in ideas is not a political change. The rock-founded Democracy of generations is in no danger. Whatever the rest of the country may do, the nomenclature of party regularity may be depended upon in accordance with its traditions.

The new viewpoint involves the thought that the Democratic party can do more for the farmer than it has been doing. Mississippi is an agricultural state, and ever since the Civil War its people have been fed upon and have absorbed the Democratic doctrines of "Free Trade," and "Tariff for Revenue Only." Perhaps their newly acquired sentiments may be best expressed in a direct statement:

"The government needs the money, so there can be no general reduction in taxes. Any attempt in that direction would be simply a shifting from one article to another the 'loading' which makes it profitable to the Government and to the producer, and burdensome to the consumer. It may be taken for granted, notwithstanding the allegations of political parties, that the people will still be paying about the same amount they are now, only through a revised system of accumulation."

There is a long list of farm products which we produce though not in sufficient quantity to entirely supply the American market. On these the tariff should be sufficiently high to cover the difference in cost of production under American conditions, and the cost in those countries which supply our markets.

Take cane syrup as an instance. Growers in South Mississippi can grow cane and make syrup when it sells, as it does under the present tariff, at forty cents a gallon, wholesale. The present tariff of \$1.24 per 100 pounds, (about 15 cents a gallon), gives a margin large enough to justify its cultivation and manufacture. Without that protection the returns would not pay for the labor involved in growing the cane. The industry would cease, and the only syrup made would be the small amount used on the farm of the grower.

Exactly the same condition prevails in the cultivation of red peppers, known in trade as capsicum, or Cayenne pepper. It is now a profitable crop where it is grown, but the fear of the removal of the tariff has worked against its wider cultivation.

The local farmers have not forgotten their experience with peanuts, which grow here luxuriously. In 1919 peanuts brought a good price, and several million dollars' worth were sold. In 1920 with the tariff gone, and the market flooded from Chinese and other sources, the returns did not pay for the seed. Cotton seed is forty per cent below a normal price, because the tariff on competing vegetable oils is too low. And there is some cause, which they do not comprehend, between \$1.50 hides and \$10.00 shoes. Cattle can not be profitably grown when there is no market for hides.

These are some of the reasons why the people of Southern Mississippi, good Democrats all, are asking their senators and representatives in Congress to protect their interests. McComb, Miss., December 17.

Open Bids January 10 for New Courthouse.

Wilmington, N. C.—Sealed bids will be received until January 10 by the Board of Commissioners of New Hanover County for the erection of the proposed new courthouse here. This is an extended date, as it had previously been announced that bids would be received until December 21.

The building will be 64 by 118 feet, four stories, of steel

and reinforced concrete. Herbert C. Shivers of New York and Wilmington, and Leslie N. Boney of Wilmington are associate architects. Plans and specifications may be had from Mr. Boney.

\$2,306,000 in Farm Products Marketed Cooperatively in Georgia During Year.

Atlanta, Ga., December 29—[Special]—Georgia farmers marketed cooperatively \$2,306,261 worth of farm products during 1923, according to J. Phil Campbell, director of the extension division of the University of Georgia, saving thereby \$235,807. During the same period, they bought cooperatively \$810,140 worth of animals, seed and farm necessities, effecting in this manner a saving of \$135,223. Thus cooperative buying and selling have been the means of saving more than \$370,000 to Georgia farmers in a single year, and a start has scarcely been made on work of this sort in the state.

Attention was centered during the year on cooperative marketing of livestock. Sales were held in 41 counties, nearly 700 car-loads of stock having been handled in sales supervised by county agents. At the same time, car-lot poultry sales, inaugurated only a little more than a year ago, have been held in 37 counties, having developed with remarkable rapidity.

To aid farmers of Georgia in buying and selling cooperatively, the State College of Agriculture and State Department of Agriculture employ jointly an agricultural marketing expert who supervises all sales, plans sale demonstrations, and aids county agents and farmers in carrying out cooperative programs.

As a further aid to farmers, the extension division has been making economic marketing studies of many commodities to determine actual costs of marketing, and has worked out a plan for tabulating records and securing more accurate data that will prove of great benefit not only to the farmers of Georgia, but to farmers all over the South.

County agents and home economics agents are helping producers to find a market for many diversified crops that are not grown in large quantities, and are making themselves invaluable in many ways to the farmers of the state. The work of cooperative buying and selling is expected to go steadily forward next year when a saving of fully \$500,000 is expected.

Contract for Savannah's New \$500,000 Office Building.

Savannah, Ga.—Contract has been awarded to the Artley Co. of this city by the Realty Investment Co., W. H. Stillwell, president, for the erection of its proposed 10-story office building here to cost about \$500,000. As previously detailed in the MANUFACTURERS RECORD, the building will be of the classic renaissance type of architecture, 60 by 90 feet, of reinforced concrete construction with a stone base and face brick above.

It will have three banking suites on the ground floor, the upper stories to be devoted to offices. A vapor-vacuum heating system will be installed, together with two elevators, mail chutes, metal ceilings, etc. Henrik Wallin of Savannah and G. Lloyd Preacher & Co. of Atlanta and Augusta, are the architects. Contract for razing a building on the site of the new structure has been awarded to Chapman & Clark of Savannah.

The Board of Commissioners of Cumberland County has selected Harry Barton of Greensboro, N. C., and Stiles S. Dixon of Fayetteville, N. C., to prepare plans for the new courthouse to be erected at Fayetteville.

A Lesson in Diversification Taught by the Success of a Georgia Cheese Factory.

Cartersville, Ga., December 28—[Special.]—Started a number of years ago as a "venture of faith" the Euharlie Cheese Factory, a co-operative enterprise located near here, has this year handled 480,591 pounds of milk for farmers in the community, according to the annual report. It has made and marketed from this milk 49,260 pounds of cheese, cheese equal in quality to the best made in New York or in Wisconsin. And it has turned back to its stockholders, the farmers of the section, \$9890 net for their labors.

The Euharlie factory has only been in operation a little over two years, but it has already proven its worth to the section.

First, by creating a market for milk, it has made it possible for the farmers to put in cows and hogs in the place of cotton. Last year it paid an average of 50½ cents a pound for butterfat that otherwise would have been a drug on the local market.

Second, it gave the farmers co-operating in the venture a source of ready cash from month to month. Cotton planters who never knew what it was to have money before the cotton crop sold in the fall have been putting money in the bank all the year, and what is more, keeping it there.

Third, it has induced diversified farming to become the rule rather than the exception in its territory. Its patrons are raising cattle, hogs and poultry, and raising food for themselves and feed for their stock at the same time. In short, it has enabled them to climb out of the one-crop rut and get on the diversified highway that leads to success.

Bids Asked on Jacksonville Plant of Ford Motor Company—Construction Estimated at \$350,000.

Relative to the erection at Jacksonville, Fla. of the proposed assembling plant for the Ford Motor Co. of Detroit at an estimated cost of \$350,000, the MANUFACTURERS RECORD has received the following special telegram:

"Jacksonville contractors are being asked to bid on construction of Jacksonville plant for Ford Motor Co. Reported that contracts will be awarded in Detroit. Main building is to be 200 by 560 feet, steel frame enclosed with brick, concrete and hollow tile. Expected that plant will also include power plant, oil tanks and other construction work."

As previously reported by the MANUFACTURERS RECORD, the Ford company acquired a site of nine acres on the St. Johns River, with a 30-foot channel. Albert Kahn of Detroit is the architect for the buildings which will be equipped for a daily output of 150 automobiles.

Five Barge Steel Cargo Reaches New Orleans.

Huntington, W. Va., December 29—[Special.]—According to word received here the towboat William G. Clyde, with five barges, arrived at New Orleans from Pittsburgh with the Carnegie Steel Co.'s first river tow of the 1923-1924 season. The 2000 mile trip downstream was made in 22 days. The Ohio and Mississippi rivers are assuming a position of increasing importance for transportation purposes as Ohio valley improvement work progresses.

Contract for \$1,250,000 Grady Hotel.

Atlanta, Ga.—Contract has been awarded to Gude & Co. of this city by the Henry Grady Hotel Co. for the erection of the 12-story Henry Grady Hotel here to cost about \$1,250,000. The building will occupy a site 143 by 115 feet and will be of red brick and reinforced concrete, with terra cotta trimmings. It will have tile and concrete floors and Barrett roof.

G. Lloyd Preacher & Co. of Atlanta are the architects, and

financial details are being handled by G. L. Miller & Co., also of Atlanta. Contract for grading the site has been awarded to Morrow & Davis, and for furnishings, curtains, rugs and equipment for five dining rooms, to the J. M. High Co., both of Atlanta.

Raising \$25,000 Fund to Fight Boll Weevil in Eastern North Carolina.

A fund of \$25,000 is being raised by the Eastern Carolina Chamber of Commerce, with headquarters in Kinston, N. C. to fight the boll weevil in 1924. The fund is being secured from fertilizer dealers, cotton factors, merchants, bankers and others.

The work of the Chamber will be co-ordinated with that of the Extension Department of the State College of Agriculture of North Carolina, and other agencies. A publicity campaign will be waged at an early date and from time to time certain measures will be advocated to offset the effects of the weevil.

Two More Daily Freight Specials.

Two daily fast through freight trains from the central West to North Carolina have just been put on by the Southern Railway to provide quicker movement for automobile, packing house products, merchandise and other high class freight shipments. One train runs from East St. Louis and Louisville and the other from Cincinnati. Both go via Danville, Ky., Harriman and Knoxville, Tenn., to Asheville, N. C., where they are broken up and the cars sent to different points in the eastern South. These trains are operated like the textile specials that the Southern Railway recently established.

Contract for \$225,000 Residence at Shreveport.

Shreveport, La., December 29—[Special.]—Contracts have recently been awarded for the erection of a \$225,000 residence here for J. E. Smitherman and excavating for foundation has begun. The building will be two stories, about 100 by 100 feet, of fireproof construction, with concrete foundations and slate roof. Edw. F. Neild is the architect and W. H. Werner the general contractor, both of Shreveport. Contract for heating and plumbing has been awarded to the Fitzgerald Plumbing & Heating Co., also of Shreveport.

Additions to Southern Railway Shops.

Birmingham, Ala.—Extensive additions will be made by the Southern Railway System, J. B. Akers, chief engineer M. W., Charlotte, N. C., to its Birmingham shops and Dwight P. Robinson & Co., Inc., of New York, has been authorized to design and construct the additions. The improvements will include extensions to the locomotive repair shops, boiler and smith shop, car repair sheds, mill shop, power plant and other buildings.

Fort Myers Votes \$445,000 Bonds for Improvements.

The city of Fort Myers, Florida, has voted \$445,000 of bonds for the purpose of making municipal improvements. George S. Iredell, city engineer, wires the MANUFACTURERS RECORD that all bond issues carried by a good majority.

Improvements planned include paving, water mains, storm and sanitary sewers and gas plant.

Austin Will Sell \$850,000 of Bonds.

Austin, Tex.—The city of Austin, W. D. Yett, mayor, will receive bids until January 10 for the purchase of \$850,000 of bonds. The bonds were recently voted and are apportioned as follows: Filtration, \$300,000; school, \$500,000, and incinerator, \$50,000.

THE IRON AND STEEL SITUATION

Favorable Outlook for Steel in 1924.

Pittsburgh, Pa., December 31—[Special.]—In this season of good cheer there has been a disposition to make forecasts that the year 1924 will be a very good one in business, and some have even predicted that it would be better than 1923. In the rank and file of the steel industry there is no disposition to make such long range predictions, and quite naturally, there is not, for, it is a sort of dictum in the steel trade that usually one cannot count on looking more than about six months ahead. There is the further point that December is a particularly poor month for the making of predictions, since one predicts chiefly on the basis of current tendencies and men are so much engaged with unusual things in December that they do not transact business along lines that would disclose clear trends.

Perhaps a typical prediction in the steel trade is that the prompt buying of steel products in the past few weeks will gradually increase during January and February, developing by March or April into a broader movement, with purchases for forward delivery and putting the mills in comfortable shape to run through the summer.

There are several reasons why one cannot avoid taking a moderately favorable view of the steel outlook. The outstanding one is the fact that the steel business in the past three months has been much better than it was expected to be. Buying of steel products on a broad scale and for extended delivery dropped to small proportions last April, since when the buying has been conservative, for relatively small lots at a time and for early deliveries. In past years the steel mills were never able to run well on such business, hence it was thought that mill operations would decline sharply towards the end of the year and prices of some lines at least would decline. These expectations having proved erroneous, the natural disposition is to credit the steel market with more ability to take care of itself. Actual consumption of steel has proved very large and as all the industries are running nicely there is no reason to expect consumption to decline in the immediately coming months.

Production of steel ingots in the first two months of 1923 was at about 45,000,000 tons a year, reached a 49,000,000 ton rate in April and decreased to a rate of about 37,000,000 tons in the last two months of the year. In the circumstances, the drop of 25 per cent was quite moderate.

If for no other reason, steel mill operations are expected to be higher in January than in the last two months on account of many orders having lately been placed with instructions not to ship until after January 1, these instructions operating to curtail December operations from what they otherwise would be and correspondingly swell January operations. Even a 37,000,000 ton rate, however, while 25 per cent below the record high of all time, is 15 per cent above the average rate in the four post-war years 1919 to 1922 inclusive, and it is not difficult to recall predictions made during the war of what a tremendous demand there was going to be for steel in the years after the war.

The steel industry has a capacity of between 50,000,000 and 55,000,000 tons of ingots a year, or fully one-half greater than its capacity when the war began. With practically everybody in the country at work during 1923 the consumption of steel was much less than the producing capacity, hence the steel industry would be in a bad way if it could make profits only when capacity was fully engaged and would have to sell at no profit or at a loss when demand was much under capacity, as it frequently had to in such circumstances before the war. The mills, however, have shown their ability in the past two months to hold prices even though the average operation has been only about 70 per cent of capacity. If prices

hold, earnings per ton in 1924 will be larger than the average in 1923, as there was much old and low priced business to fill, particularly in the fore part of the year.

The sheet market, which has been subject to more or less shading since early in August, has firmed up, and closes the year at the full schedule: Blue annealed, 3.00c; black, 3.85c; galvanized, 5.00c; automobile, 5.35c. Bars remain at 2.40c, shapes and plates at 2.50c, plain wire at 2.75c, wire nails at \$3.00, merchant pipe at 62 per cent basing discount and tin plate at \$5.50.

Connellsville coke continues easy. The usual asking price on furnace coke is \$4.00, but prompt lots can be picked up at less, sometimes down to \$3.75, while \$4.00 seems to have been shaded in a couple of cases for first quarter. Foundry coke is steady at \$5.00 to \$5.50.

Pig iron is quiet. Foundry remains firm at \$22 to \$22.50, valley, while Bessemer and basic are steadier at \$23 and \$21 respectively, valley. An investor has bought 5000 tons of Bessemer at \$23, valley.

The trade expects Lake Superior iron ore to come down 50 cents all around for the 1924 season, which would restore the 1922 season prices, likewise those of 1917. With such a decline Mesabi non-Bessemer would be \$5.05, f. o. b. Lake Erie docks.

Steady Production at Birmingham During Holiday Period—Stronger Prices.

Birmingham, Ala., December 31—[Special.]—Resumption is under way in the iron and steel markets and kindred industries in the Birmingham district and indications point not only to continued activities as obtained two weeks ago but an increase. Another buying movement is looked for by the furnace interests of this section and stronger prices are already in effect. The market has assumed a \$21.50 per ton base and \$22 is being asked by some. Some little selling has already started in local melters buying as heretofore, in small lots and frequently. The \$20 and \$21 per ton base is disappearing, even for iron to be shipped into the middle west.

Production has continued steady through the entire holiday period. Several of the steady melters of pig iron, including both pressure and sanitary pipe makers reopened their works the middle of the past week and the others are now following suit so that on the first of the year there will be under way a general resumption and in some instances at a greater pace than heretofore. With a considerable portion of the probable make of the first quarter of 1924 sold, the furnace interests feel sure the splendid start last week will take up impetus as the year comes on and that there will be a good market condition for an indefinite period.

The production is still around 215,000 tons of iron per week and can be increased on very short notice. Inquiries have been coming in since the first holiday. Local melters are buying in lots of from one to three cars with immediate delivery stipulated and being accomplished. These industries are going to need considerable iron for what contracts they have in hand and in sight. The gas and water pipe makers have a considerable volume of business on hand already and lettings are expected to start in again at once. An indefinite active run of plants with the gas and water pipe makers is assured now.

Steel plants have already started in on 1924 contracts. The car works at Fairfield have contracts in hand which will be turned out in quick order with no small amount of steel being necessary. Steel wire and nails are in fairly good demand and indications point to a necessity for steady

operation of plants in this district for an indefinite period. The Gulf States Steel Company resumed operations at its Gadsden steel plant Wednesday of the past week, four open hearth furnaces and the finishing mills starting up. At the big plant of the Tennessee Coal, Iron & Railroad Company and also of the American Steel & Wire Company there has been resumption of operations and shipments of the products have been under way now for several days again, the interruptions being short. The blast furnace operations did not lose a minute's time during the past week and everything appears to be set for a steady 1924 business, at any rate for the first six months. Some inquiries have been received as to pig iron for second quarter of the year but very little tonnage has been sold.

The coal production was off during the past week but not as much as was expected in some quarters. Labor evinced an interest to get back to work and with prospects of a better demand for steam coal much improvement is expected. As with the iron and steel industry very little labor has left this district during the past few weeks, conditions here being as good as in other sections, if not better. Coal production for the third week in December went as high as 360,000 tons and though the last week saw a falling off the month's output is equal to that of the past three or four months. The annual production figure for Alabama will be most satisfactory, exceeding 1922.

Coke production is still lagging, but the demand is picking up slightly. Russell Hunt, treasurer and general southern sales manager for the Sloss-Sheffield Steel & Iron Company, is urging coke manufactured at the by-product coke ovens for domestic purposes and is selling quite a lot as compared to what was done in the past in this direction. Coke prices are very low. By-product coke in quantity is to be had at \$5 per ton.

The scrap iron and steel market is looking up some, dealers reporting foundries buying a little tonnage. Prices have been shown a slight change for the better. There is a quantity of old material on yards, railroads are offering large tonnages, and no trouble whatever is to be experienced in getting any stock needed. Expectations are that the old material market will show improvement both as to demand and in the quotations.

Pig iron and iron and steel scrap quotations in the Birmingham district are as follows:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$21.50 to \$22.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$22.00 to \$22.50; iron of 2.75 to 3.25 per cent silicon, \$22.50 to \$23.00; iron of 3.25 to 3.75 per cent silicon, \$23.00 to \$23.50; iron of 3.75 to 4.25 per cent silicon, \$23.50 to \$24.00; charcoal iron, f. o. b. furnaces, \$32.00 to \$33.00.

OLD MATERIAL.

Old steel axles	\$17.00 to \$ 8.00
Old iron axles	20.00 to 21.00
Old steel rails	14.00 to 15.00
Heavy melting steel	15.00 to 16.00
No. 1 cast	18.50 to 19.00
Stove plate	14.50 to 15.50
No. 1 R. R. wrought	14.50 to 15.50
Old car wheels	15.00 to 16.00
Old tramcar wheels	16.00 to 16.50
Machine shop turnings	6.00 to 7.00
Cast iron borings	8.00 to 9.00
Cast iron borings (Chem.)	16.00 to 17.00

\$4,000,000 Spent for Cars and Engines.

The recent order of the Mobile & Ohio Railroad for five large locomotives and 1000 freight cars, together with thirteen large locomotives and 700 freight cars ordered some time ago and lately delivered, represents a total estimated expenditure of \$4,000,000 for new equipment, all of which is expected to be in use by May 1 next. The work of improving bridges already completed between St. Louis, Mo., and Meridian, Miss., in preparation for the use of the heavier cars and engines will be continued from Meridian to Mobile, Ala.

RAILROADS

What the Railroads Have Done in 1923.

The American Railway Association, 916 Transportation Building, Washington, D. C., says that with complete reports for forty-nine weeks from January 1 to December 8 inclusive, and with estimates made for the last three weeks of this year, the loadings of revenue freight on the railroads for 1923 will total approximately 49,844,000 cars, or an increase of 15-2/5 per cent over 1922 and 10 1/2 per cent over 1920. The war year of 1918 is exceeded by nearly 12 per cent. During nine consecutive months the loadings averaged more than 1,000,000 cars a week, the greatest loadings being in the week ended September 28 the total for that being 1,097,274 cars.

The campaign begun last spring by the railroads for early shipments resulted in making available an increased amount of freight equipment for the crop movement in the late summer and in the autumn. There was a decidedly earlier movement of such commodities as coal and road materials. Tentative reports indicate an increase—as compared with the year 1920 when traffic volume made a record—in freight movement measured in net ton miles, of approximately 2 1/2 per cent.

Capital expenditures for equipment and other facilities alone actually made in 1923 total \$1,075,897,940, as compared with \$429,272,836 expended in 1922. There is also being carried over into 1924 authorizations made this year for similar expenditures amounting to \$300,806,519, making an aggregate of \$1,805,977,295 expended or authorized for 1922 and 1923.

Texas & Pacific Plan Finally Approved.

It is announced that the stockholders of the Texas & Pacific Railway Co. at their special meeting held recently in New York, approved the reorganization plan prepared by Kuhn, Loeb & Co., the readjustment managers, and that this action averts the imposition of an assessment upon the common shares besides preventing a sale at foreclosure and the consequent loss of the company's Federal charter. The financial requirements of the company will be provided for by an issue of general and refunding mortgage bonds not to exceed \$8,000,000. The stockholders, it is further stated, authorized steps to be taken to put the reorganization plan into effect. The company has been in the hands of the courts since 1916. Previously the bondholders' committee approved the plan as well as the Missouri Pacific Railroad Co., which holds \$23,703,000 of second mortgage income bonds, in lieu of which new preferred stock will be issued to that company. Application will be made to the Interstate Commerce Commission to issue the necessary securities to fulfil the plan.

Change of Route Authorized.

The Public Service Commission of Maryland has authorized the Baltimore & Eastern Shore Railroad Co. to engage in business and to make its proposed connection with the Oxford branch of the Delaware Railroad at Queen Anne station. By this means trains will be operated between Love Point and Ocean City, Md., via Queen Anne and Easton, instead of between Claiborne and Ocean City as at present. Connection with Baltimore will be made by steamer from Love Point instead of from Claiborne and the water trip will be shortened as to time from 3 1/2 hours to 2 1/4 hours. This will cut an hour or more from the present run of seven hours from Baltimore to Ocean City. It is expected that the connection will be built immediately.

Recent Railroad Financing.

The Mobile & Ohio Railroad Co. has sold to Clark, Dodge & Co., of New York, at 95½ and interest, \$1,678,000 of 5 per cent equipment trust certificates, this being subject to the approval of the Interstate Commerce Commission. The proceeds will be used in the purchase of 1000 box cars and 5 locomotives which will cost altogether about \$2,098,000.

The Chicago, Burlington & Quincy Railroad Co. has asked the Interstate Commerce Commission for authority to issue \$43,000,000 of 5 per cent first and refunding mortgage bonds of which \$20,000,000, it is stated, will be used for improvements in 1924.

The Virginian Railway Co. has sold at 91 and interest to Lee, Higginson & Co. and the National City Company, of New York, \$5,000,000 of 5 per cent fifty-year bonds subject to the approval of the Interstate Commerce Commission. The proceeds of the issue will be used for terminal improvements.

The Southern Railway Co. has applied to the Interstate Commerce Commission for authority to issue and sell \$1,025,000 of 5 per cent first consolidated bonds at not less than 92, the proceeds to be used for refunding.

New Equipment.

Central of Georgia Railway is reported in the market for 2 passenger and baggage cars, 6 smoking cars, 4 mail and baggage cars and 3 baggage and express cars. The Missouri Pacific Railroad contemplates buying three gasoline motor cars for passenger service.

Alabama & Vicksburg Railway has ordered 5 passenger cars, 2 passenger and baggage cars, and 1 baggage car from the American Car & Foundry Co.

International & Great Northern Railroad has ordered 12,000 tons of rails.

Henry Ford is reported to have had build by the Standard Tank Car Co. for the Detroit, Toledo & Ironton Railroad, 1000 box cars of new double deck pattern for greater economy in making shipments of automobiles by being able to carry twice as many machines in one car. The estimated cost of the cars is \$2,500,000.

Virginia & Carolina Southern Railroad, Lumberton, N. C., has ordered a gasoline motor car for passenger service, from the Edwards Railway Motor Car Co., Sanford, N. C.

Second Track at Montgomery.

The Louisville & Nashville Railroad Co. will begin construction immediately on a second track from Montgomery southward to Catoma, Ala., 5 miles, the estimated cost of the improvement being about \$265,000. This work when completed will give the railroad ten miles of double tracking in and out of Montgomery and will relieve congestion in the yards there. Surveys have been made.

A Texas Road Extending.

The Nacogdoches & Southeastern Railroad Co. which operates a line 28 miles long from Nacogdoches, Tex., to Pershing is reported building an extension from Oil City into San Augustine County, Tex. E. A. Frost is president, and F. T. Whited, vice president, both of Shreveport, La. H. W. Whited, of Nacogdoches is general manager.

Motor Truck Freight Line.

The organization of the Interstate Express Company, of Greensboro, N. C., is reported to conduct the business of a common carrier from Charlotte to Raleigh, N. C., via Greensboro, about 200 miles. Motor trucks will be operated and freight handled to these places and also to intermediate points.

Conference on Transportation Needs.

A call for a national conference concerning transportation to be held at Washington, D. C., on January 9, 10 and 11, has been issued by Julius H. Barnes, president of the Chamber of Commerce of the United States. Two hundred men of recognized prominence and standing in agriculture, commerce, industry, finance, and education have been invited to participate in discussing problems surrounding the development of adequate transportation facilities. Mr. Barnes says that the expanding needs of America can be easily visualized and that national income, earned only through transportation and distribution, has risen thus: 1890, \$12,000,000,000; 1900, \$18,000,000,000; 1910, \$32,000,000,000; 1920, \$60,000,000,000, and then he asks: "1930, What? 1940, What?" The convention is to consider not only railroads, but highways transportation and waterways transportation. The subject of government regulation will be fully considered, besides rate making, etc.

Large Increase in B. & O. Earnings.

The Baltimore & Ohio Railroad Company's statement of earnings and expenses for the first eleven months of 1923 shows railway operating revenues, \$238,519,181; increase, as compared with the same period of 1922, \$56,625,117; railway operating expenses, \$183,924,339; increase, \$34,143,563; net revenue from railway operations, \$54,594,842; increase, \$24,481,554; net railway operating income after deducting railway tax accruals, uncollectible railway revenues, and equipment and joint facility rents, \$41,529,435; increase, \$22,932,985.

The statement for the month of November alone shows railway operating revenues, \$20,057,155; increase as compared with the same month of last year, \$212,115; railway operating expenses, \$16,348,783; increase, \$526,523; net revenue from railway operations, \$3,708,372; decrease, \$314,408; net railway operating income, \$2,571,596; decrease, \$452,477.

A Cutoff Plan in Tennessee.

Application has been filed with the Interstate Commerce Commission by the Southern Railway Co. for authority to build a new line from Bulls Gap to Leadvale, Tenn., 17 miles, this improvement being designed to shorten length of haul for coal trains as well as to reduce grades. The line will be in the nature of a cutoff and will enable traffic to move from Asheville to points in the southwestern part of Virginia and vice versa more expeditiously, as a detour via Morristown, Tenn., will be eliminated.

Double Track Contracts Let.

The Atlantic Coast Line has awarded contracts to Gus Ginn, Inc., of Gastonia, N. C., and the Cornell Young Company of Charlotte, N. C., for double tracking on the main line between Parkton, N. C., and Pee Dee, S. C., 57 miles. Their work on this section will include 250,000 cubic yards of earth excavation and the laying of about 20 miles of tracks and switches on the job. The work is to be finished by July 1 next.

Short Line to Be Sold.

The West Virginia Midland Railroad, a narrow gauge line 30 miles long from Webster Springs to Holly Junction, W. Va., connecting with the Baltimore & Ohio Railroad, is to be sold by the estate of John T. McGraw, who was its president. John M. Hoover, of Webster Springs, and George A. Hechmer, of Grafton, W. Va., were appointed commissioners for the sale. The line serves coal and timber lands.

GOOD ROADS AND STREETS

\$2,000,000 Viaduct Proposed for Dallas.

Dallas, Tex.—According to estimates recently submitted by J. F. Witt of the engineering firm of Nagle-Witt-Rollins of Dallas, at a meeting of the Oak Cliff-Dallas, Commercial Association, a new vehicular viaduct to connect the east and west sides of Trinity River and relieve congestion in traffic on the two existing viaducts, will cost about \$2,000,000. These figures include a special allowance of \$100,000 for terminal facilities for the structure.

It is understood that tentative plans would be provided by the Nagle-Witt-Rollins firm without cost and that Dr. J. A. L. Waddell, bridge engineer of New York and Kansas City, would in association give advice and assistance in the preliminary plans deemed necessary to make a proper presentation to the legislature and to the public when a bond issue shall be proposed for construction.

John W. Pope is chairman of a committee of ten appointed by the association to procure data and get the proposal in shape for presentation to the Legislature.

Louisiana Wants Bids on 26 Miles of Roads.

Baton Rouge, La.—Sealed proposals will be received at the office of the Louisiana Highway Commission here until January 22 for the construction of 26.42 miles of road, including the following: For 5.70 miles in Evangeline Parish of the Opelousas-Oakdale highway from Ville Platte southeast to the St. Landry Parish line; 9.18 miles on the same road from Ville Platte west to Rock Island railroad, and for 11.54 miles of the Eunice-Le Compté highway from the St. Landry Parish line near Eunice to the intersection with project 379-B at the Rock Island crossing.

Bids will also be received at the same time for furnishing washed gravel or sand-clay gravel or both for surfacing these roads.

Information as to location, character of the work and other details may be obtained from the office of the commission. J. M. Fourmy is the state highway engineer.

\$1,500,000 to Elevate Railroad Tracks and Repave Streets of Jackson.

Jackson, Miss., December 29—[Special.]—At a cost of about \$1,500,000 it is planned to elevate railroad tracks and repave a number of streets in this city, the work to be done by the Illinois Central Railroad Co. and the city administration. F. L. Thompson, chief engineer of the Illinois Central and M. L. Culley, city engineer of Jackson, will have charge of construction.

Hines County Will Build Three Roads.

Jackson, Miss., December 29—[Special.]—Hines County will receive bids until January 8 addressed to the Chancery Clerk, Jackson, for the construction of three sections on the Terry, Clinton and Canton roads, one contract to cover all. The roads will be of concrete on a concrete base with a bituminous surface, for which a total of \$150,000 is available. W. B. Montgomery of Jackson is the engineer in charge of construction.

Bids for Nine Miles Sand-Clay Road.

Monticello, Fla.—The State Road Department, Tallahassee, will receive sealed bids until January 8 for building 9.45 miles of road in Jefferson County, the work to consist of grading, clearing, grubbing and sand-clay surfacing. Plans may be seen at the office of the State Road Department or at the office of the division engineer at Monticello. J. L. Cresap is the state highway engineer with offices at Tallahassee.

\$300,000 Improvement Program in a Florida County.

Madison, Fla.—Madison County has begun work on a road improvement program which will affect 160 miles and will cost about \$300,000, a number of projects already being contracted and construction progressing, while several have been completed. The work yet to be done will include 30 miles on state road No. 1; 12 miles on road No. 2; 14 miles on road No. 4; 17 miles on road No. 5; 6 miles on road No. 6; 14 miles on road No. 7; 9½ miles on road No. 8, soon to be completed; 12½ miles on road No. 9, also nearing completion; 17 miles on road No. 10, and 17 miles on road No. 12, besides other work.

The county plans to equip its road forces with modern maintenance facilities for the care and up-keep of the roads as fast as they are completed.

Plan Concrete Road to Cost \$250,000.

Charleston, S. C.—At a recent meeting here of the county sanitary and drainage commission, plans were outlined for concreting the Blue House road from the end of the present concrete stretch to the Dorchester and Berkeley County lines, on the route to the Summerville and to the Santee River highway. In conformity with a motion adopted by the commission, the subject will be taken up with the county legislative delegation and with the State highway commission, as it is considered necessary to secure federal aid for the project.

The construction of the road will cover a distance of eight miles and will cost about \$250,000.

Road Contracts Let—\$275,000 Bridge Planned.

La Grange, Tex., December 29—[Special.]—Fayette County has awarded a contract to W. H. Davis of Lagrange, at \$14,250 for grading, graveling and doing the culvert work on 1.69 miles of streets in this city. It has also awarded a contract to Mr. Davis at \$96,250, for 5.80 miles of grading, graveling and constructing bridges and culverts on federal aid project No. 285. This road leads to a point on the Colorado River south of La Grange where a new bridge will be constructed at a cost of \$275,000. Contract for the structure will soon be awarded.

Twenty-One Miles of Road in Bradford County.

Tallahassee, Fla.—Bids will be received at the office here of the State Road Department until January 15 for the construction of 21.5 miles of road in Bradford County apportioned as follows: Project No. 572, 7.3 miles; project No. 594, 9.1 miles, and project No. 607, 5.1 miles.

The work will consist of plain cement concrete, asphaltic concrete, sheet asphalt and bituminous macadam on a rock base, with drainage structures, curb and gutter. Plans may be seen at the office of the commission and at the offices of the division engineers. J. L. Cresap is the state highway engineer.

\$1,000,000 Expended by Sumter County, Fla.—Vote on \$650,000 Bonds to Complete System.

Bushnell, Fla.—Without receiving or soliciting federal or state aid, Sumter County in the past three years has expended \$1,000,000 for the construction of good roads, and will vote January 30 on a bond issue of \$650,000 to carry on the work. Upon completion of the roads planned, it is estimated that the system will touch the homes of 95 per cent of the county's farming population. The proposed bond issue will enable the county to link up three cross-state roads.

Pike County Lets Road and Bridge Contracts.

Pikeville, Ky.—Contracts have been awarded by the Pike County fiscal court for the construction of 13.5 miles of road and a number of bridges. Henry M. Waugh, Bluefield, W. Va., secured contract for grading and draining 4.5 miles of road extending up Peter Creek to Phelps, while the Eagle Construction Co. of this city has contract to build 9 miles on the Levisa fork extending from the Forks to Grapevine Creek.

Contract was let to John A. Steele, Jr., of Knoxville, Tenn., for five bridges across tributaries of the Levisa lying above the Forks, to span Upper Pompey, Matts Creek, Hurricane, Johnnakin and Lower Pompey. The Campbell Construction Co. of Pikeville received contract for the substructure for three steel bridges on Raccoon Creek between the mouth of Burning Fork and Frozen.

To Make Road Building Materials from Slag.

Moundsville, W. Va., December 28—[Special].—Slag from the furnaces of the Benwood and Bellaire mills of the United States Steel Corporation, heretofore a waste, will be utilized by the Standard Slag Co. in the manufacture of cement and other road building materials. With that in view, the company has purchased a tract of land in South McMechen where a factory will be erected and machinery installed for the reduction of the slag. General offices of the company are at Youngstown, Ohio and district offices at Steubenville. It has been announced that construction work on the factory building will be started at once and it will probably be in operation early in February.

\$150,000 Bridge at El Paso.

El Paso, Tex., December 29—[Special].—The construction of a \$150,000 bridge connecting El Paso with Juarez, Mexico, has been planned by the El Paso Electric Railway Co. and the El Paso & Juarez Traction Co., joint owners. The bridge will be of reinforced concrete, 467.6 feet long and 32.6 feet wide. J. B. White of this city is the superintendent of construction and the work will be done by Stone & Webster, Inc., of Boston.

Nueces County Opens Bids for 10 Miles.

Corpus Christi, Tex.—At a recent meeting here of the Nueces County Commissioners Court, bids were opened for the construction of 10.1 miles of road on state highway No. 12. Smith Brothers of Dallas submitted the lowest bid at \$288,062, and this bid was retained, but contract has not yet been formally awarded.

\$275,000 Contract for Concrete Road.

Bonham, Tex.—Contract has been awarded by Fannin County to Julien C. Field & Co. of Denison, Tex. to build 7.35 miles of concrete road on State highway No. 5, at a cost of \$275,000. Pinckney B. Price is the engineer in charge of construction.

Acquire Interest in Brazos Valley Mill.

West, Tex.—In association with a group of capitalists, J. Perry Burrus of Dallas, president of the Dallas Textile Mills and the McKinney Cotton Mill Co., has purchased the interests of Thomas A. Ferris and others in the Brazos Valley Cotton Mills here. Following the purchase, directors of the Brazos Valley mills elected Mr. Burrus president of the corporation and B. R. Neal of Dallas, a director. Will Steel will continue as general manager.

The Brazos Valley Cotton Mills have been in operation about fifteen years and use 6240 ring spindles and 210 looms for the production of ducks and Osnaburgs.

TEXTILE

Contract for Mill Structures to Cost \$200,000.

Balfour, N. C.—A contract for the erection of buildings to house the plant of the Balfour Cotton mills to be erected here by Captain Ellison A. Smyth of Greenville, S. C. and Flat Rock, N. C., has been awarded to the Fiske-Carter Construction Co. of Spartanburg, S. C. The contract covers erection of the main mill building, which will be one story and basement, 337 by 212 feet, together with a cotton warehouse, 100 by 100 feet, and a power house, the three structures to cost about \$200,000.

The buildings will be of standard brick and timber construction, the mill building to house 10,000 spindles and 250 looms at first. A contract for the erection of more than 75 dwellings was announced a few weeks ago. J. E. Sirrine & Co. of Greenville are the engineers and it is estimated the mills will cost about \$1,000,000.

Arcadia Mills Let Water and Sewerage Contract.

Spartanburg, S. C.—Contract has been awarded to the Henry Construction Co. of Greenville, S. C. for the installation of water and sewerage systems for the Arcadia Mills here. The work will involve an expenditure of \$75,000 and will be done in accordance with plans and specifications of Lockwood, Greene & Co., of Boston and Atlanta, with offices at Spartanburg and other Southern cities.

Work is progressing on Arcadia Mill No. 2. It is expected to be completed by March. The new mill will accommodate 10,000 spindles and 300 looms at first, although floor space will be sufficient for twice that equipment. The Galivan Building Co. of Greenville is the general contractor for this unit and Lockwood, Greene & Co. are the engineers.

Loray Mill Improvements at Gastonia.

In connection with the proposed addition to the Loray Mills at Gastonia, N. C. owned and operated by the Manville-Jenckes Co. of Pawtucket, R. I., to which reference was made last week by the MANUFACTURERS RECORD, the Aberthaw Co. of Boston, contractors for the construction, write as follows:

"This is not a large operation. It is a two-story structure of irregular shape embodying concrete, brick and timber and involving an expenditure of approximately \$50,000. It is to be used as a weave shed and we understand will house approximately 200 looms. The work has just been started and sub-contracts have not yet been let."

Higher Dam for Proposed Textile Mill.

Marble Falls, Tex., December 29—[Special].—C. L. Jones has been granted permission by the State Board of Water Engineers to increase the height of the dam in the Colorado River at Marble Falls by three feet. The increased height will impound several million gallons more of water and will generate power enough to operate a cotton mill, which has been proposed. The Marble Falls Textile Co., are to erect the new mill which will be equipped with 10,000 spindles. Plans are being made by M. H. Merrill & Co., of Boston.

Pennsylvania Yarn Mills Incorporated.

Greensboro, N. C.—Incorporation papers of the Pennsylvania Yarn Mills, with an authorized capital stock of \$350,000, have been received here for record in the office of the clerk of the Guilford County court. The company's principal office will be at Cedar Falls, N. C., and it is empowered by the terms of its charter to establish branches in this and other states. Its incorporators are C. J. Cox, Greensboro; I. N. Cox, Cedar Falls, and Carter Dalton, High Point.

LUMBER AND BUILDING MATERIALS

Falling Off in Lumber Movement but Volume Greater Than Last Year.

Washington, December 27.—A falling off in production, shipments and orders in the lumber movement of the country for the week ending December 22 is indicated by reports received by the National Lumber Manufacturers Association from 352 of the larger commercial sawmills of the country, as compared with revised reports from 392 mills of the preceding week. The holidays relaxation contributed to the general seasonal decrease. There was a decrease of 28,020,848 feet in production, 5,239,264 feet in shipments and 24,654,378 feet in orders as compared with the preceding week. The volume of business is, however, noticeably larger than at this time last year. The 125 reporting mills of the West Coast Lumbermen's Association and the 116 reporting mills of the Southern Pine Association show a decrease in unfilled orders on hand from 687,237,990 feet of the preceding week to 650,958,678 feet for the week ending December 22.

For all the mills of the 7 reporting associations, shipments were 97 per cent and orders 102 per cent of production. For Southern Pine Association mills these percentages were 102 and 118, and for the West Coast mills 87 and 90. Most of the mills have a normal production for the week, according to which actual production was 99 per cent, shipments 95 per cent and orders 99 per cent.

The following table compares the lumber movement for the three weeks indicated:

	Past Week	Corresponding Week 1922	Preceding Week 1923 (Revised)
Mills	352	327	392
Production	206,960,193	159,672,543	234,981,041
Shipments	200,780,948	189,190,442	206,020,212
Orders	210,340,213	190,987,135	234,994,591

Reports received this week from 5 of the California pine mills, representing 7 per cent of the total cut in the California pine region, give their production as nothing, shipments 2,181,000 feet, and orders 566,000 feet.

The West Coast Lumbermen's Association wires from Seattle that production for last week of 125 mills was 102,086,375 feet, sales 92,101,884 feet and shipments 89,309,421 feet. Production for reporting mills was 20 per cent above

normal, new business was 10 per cent below production and shipments were 3 per cent below new business.

Compared with like period of 1922, the lumber movement for the first 51 weeks of 1923 is as follows:

	Production	Shipments	Orders
1923	12,134,961,789	11,986,543,280	11,466,737,850
1922	10,712,054,844	10,295,293,101	10,588,303,560
1923 Increase	1,422,906,945	1,691,250,179	878,434,290

Southern Pine Orders Up Again.

The Southern Pine Association for the week ended December 21 reports as follows on 116 mills:

	Cars.	Feet.
Orders on hand beginning of week.....	10,188	213,214,464
Orders received during week.....	3,666	76,722,048
Total	13,854	289,936,512
Shipments during week	3,166	66,258,048
Orders on hand end of week.....	10,688	223,678,464

Production for the week was 65,092,246 feet. Shipments were 1,165,802 feet above production or 1.79 per cent. Orders were 11,629,802 feet above production or 17.87 per cent. Orders were, 10,434,000 feet or 15.79 per cent above shipments. The week was 7,828,832 feet or 10.74 per cent below normal production.

Meeting of Southern Forestry Congress.

The Sixth Southern Forestry Congress will be held at Savannah, Ga., January 28 to 30. The sessions will include a consideration of the perpetuation of the naval stores industry. Papers will be read, followed by discussion, on the intimate relationship of the forests to the business life of the South, including port development, agriculture and the establishment of paper and pulp mills. National aspects of forest conservation will have a place on the program.

Officers of the Congress are: President, Bonnell H. Stone, Blairsville, Ga.; chairman executive committee, Col. Jos. Hyde Pratt, Chapel Hill, N. C.; vice president, P. R. Camp, Franklin, Va.; secretary, R. D. Forbes, New Orleans; assistant secretary, J. R. Weston, Logtown, Miss.

LUMBER MOVEMENT FOR FIFTY-ONE WEEKS, AND FOR WEEK ENDING DECEMBER 22.

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association:						
Total	3,932,599,433	3,751,431,895	4,019,662,557	3,669,750,972	3,826,456,268	3,833,871,512
Week (116 mills)	65,092,246	69,756,941	66,258,048	75,484,017	76,722,048	73,846,521
West Coast Lumbermen's Ass'n:						
Total	5,214,937,274	4,345,231,650	5,282,933,633	4,023,918,314	5,176,987,446	4,123,225,803
Week (125 mills)	102,086,375	69,481,961	89,309,421	78,910,647	92,101,884	82,732,614
Western Pine Mfrs. Ass'n:						
Total	1,440,903,000	1,181,607,000	1,249,040,000	1,174,586,000	1,174,275,000	1,210,700,000
Week (35 mills)	18,030,000	4,394,000	23,843,000	13,364,000	20,825,000	16,825,000
California Redwood Association:						
Total	486,291,000	429,762,000	449,197,000	368,152,000	433,444,000	401,254,000
Week (13 mills)	5,572,000	7,075,000	3,880,000	8,900,000	2,952,000	6,386,000
North Carolina Pine Association:						
Total	441,394,582	486,532,921	451,809,690	496,031,282	361,302,136	481,282,245
Week (41 mills)	8,386,572	2,620,641	7,194,879	3,448,472	6,867,281	1,596,000
Northern Hemlock & Hardwood:						
(Softwood) Total	122,302,000	101,751,000	122,861,000	141,828,000	106,461,000	127,443,000
Week (12 mills)	823,000	1,308,000	1,105,000	1,078,000	1,482,000	926,000
Northern Pine Mfrs. Association:						
Total	496,534,500	415,738,378	411,039,400	421,026,533	387,812,000	410,527,000
Week (10 mills)	5,106,000	5,036,000	6,719,600	8,005,306	6,547,000	8,675,000
General Total for 51 Weeks:						
(Softwood)	12,134,961,789	10,712,054,844	11,986,543,280	10,295,293,101	11,466,737,850	10,588,303,560
Northern Hemlock & Hardwood:						
Hardwood (51 weeks)	130,559,000	.....	161,340,000	.....	143,276,000	.....
Calif. White & Sugar Pine Mfrs.:						
(51 weeks)	1,166,606,000*	.....	707,504,000*	.....	.....	.....
General Total for Week.....	206,960,193	159,672,543	200,780,948	189,190,442	210,340,213	190,987,135

*California White and Sugar Pine reports not included in totals, because "orders" not reported.

12,000,000,000 FEET OF SOUTHERN PINE PRODUCED IN 1923.

Industry Closes Satisfactory Year—Marked Increase in Export Trade.

New Orleans, December 29—Nineteen twenty-three has proved one of the most generally satisfactory years for the Southern pine industry in its history, according to the statistical and economic review of H. C. Berckes, secretary-manager of the Southern Pine Association. The year has been void of any conditions, handicaps or detriments in the industry to mar its success, the review says.

Operating conditions in the industry have maintained an undisturbed equilibrium, while increased transportation facilities and more active car supply contributed to a distribution of output approaching record levels.

There were approximately 180,000 persons employed in the industry during 1923 in the principal Southern pine producing states and their annual payroll aggregated about \$200,000,000.

Secretary Berckes stated that the production statistics compiled by the Association relating to subscriber mills, indicate that the total output of Southern pine for 1923 will be in the neighborhood of twelve billion feet, or from one-fourth to one-half a billion feet greater than the indicated production of 1922. Further he said:

"Basing our comparison on a tabulation of 100 representative mills from which figures have been gathered each month from January, 1915 to November, 1923 inclusive, we find that these 100 mills produced in the eleven months of 1923 a total of 3,135,428,369 feet, a production greater than that recorded by these mills in any corresponding period of any past year since 1916, when the output for the eleven months was 3,153,052,550 feet.

"Shipments made by these 100 identical mills during the first eleven months of 1923 totaled 3,211,295,191 feet, being the largest 11 months movement on record for any similar period excepting in 1917, when these 100 mills shipped 3,228,996,936 feet.

"The following table covers Southern pine production, shipments and orders booked for the full twelve months of 1922 and 1923, with the figures for December this year computed upon the average of the actual figures for the first eleven months of the year. The 1923 data was furnished by approximately 180 mills, this being the average number of mills reporting monthly during the year, while the 1922 figures were reported by an average of 173 mills. The 173 mills reporting in 1922 were, in the aggregate, more representative operations than the 180 mills reporting this year. Notwithstanding this, both production and shipments in 1923 exceeded the 1922 totals, while orders will fall only about 6 per cent below the 1922 figure:

	1923	1922	Percent Increase
Production	4,899,811,764	4,753,980,354	3.1
Shipments	4,980,323,165	4,725,688,046	5.4
Orders	4,979,101,224	5,320,498,491	*6.4

*Decrease.

"Orders booked in the eleven months of 1923, as computed on a basis of 192 identical mills, averaged 25,717,479 feet per mill, compared with 25,809,000 feet per mill in 1922.

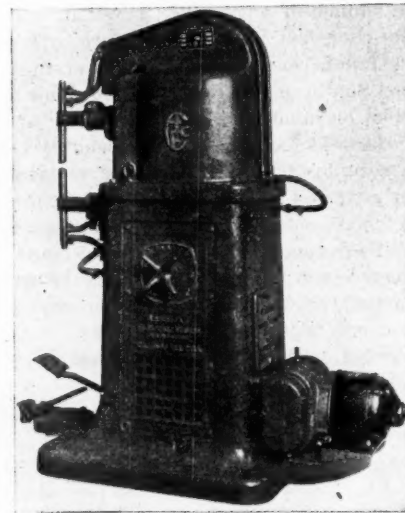
"During 1923 there was witnessed a marked revival of the Southern pine export trade. Exports of Southern pine lumber and timbers in the eleven months of 1923, totaled 653,419,181 feet, or 83.03 per cent of the total lumber exports through Gulf ports during this period. This is an increase of 25.54 per cent over 1922 and of 4.76 per cent over 1916 which was the next heaviest aggregate on records extending back to 1915."

MECHANICAL

Spot Welding Machine With Automatic Control.

A spot welding machine with an automatic control which permits very high speed operation is being manufactured by the American Electric Fusion Corporation of Chicago. Its range of usefulness includes practically all production welding work from the uniting of fine wire to the joining of comparatively heavy sheet steel.

In spot welding the material to be welded is put between copper dies or electrodes, which are put firmly together by either foot or other power and then a heavy current goes through the circuit, the metal to be welded becoming heated



SPOT WELDING MACHINE AND MOTOR.

until it reaches a sufficiently high temperature when pressure is applied and the weld completed. By means of the automatic control the current is turned on and off and the pressure is applied by the controlling mechanism, and the current is applied to a definite spot only and in just the right quantity and for the necessary time. Because of the rapidity with which the intense heat can be generated thousands of welds can be made every hour on small, light stock.

The welder is driven by a Westinghouse type A. R. S. repulsion-induction type motor operating at a speed of approximately 1100 revolutions per minute. Mounted on the motor shaft is a quadruple thread worm, meshed with a worm gear, giving a primary reduction between the motor and the lower drive shaft of the gear housing of 1 to 10, which, with equal gears, drives the welder at the rate of 110 spots a minute. Two other gears of the lathe change type are provided, which allow a minimum speed of 80 spots and a maximum speed of 140 spots a minute. Any other combination of gears to suit the work in hand can be used. By substituting a double or a single thread worm and gear in place of the quadruple, a further reduction can be obtained down to 13 spots a minute. If a quick change drive is desired a quick shaft attachment with nine steps can be used, giving a range of welding speeds from 20 to 120 spots a minute.

A foot treadle control is employed for starting and stopping the welder. This treadle, which for convenience is mounted in front of the machine, is so designed that the operator can obtain one or a series of spots, depending on the kind of work. When the control is fully engaged continuous operation is obtained.

The Lawrenceville Mills, Lawrenceville, Ga., will soon begin construction of a \$100,000 addition to their plant. The product of these mills is cotton yarns.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Bridges, Culverts and Viaducts

Ark., Fulton—Fulton Ferry & Bridge Co., plans building concrete and steel bridge; Harrington, Howard & Ash, Engrs., Kansas City, Mo.

Fla., Bradentown—Manatee County plans building concrete draw bridge over Manatee River. Address Lieut.-Col. Gilbert A. Youngberg, Dist. Engr., Jacksonville, Fla.

Fla., Kissimmee—State Road Dept., Tallahassee, Fla., will receive bids until Jan. 4 to construct drainage structures on Road No. 2, Osceola County, Project No. 563; 3100 lin. ft. treated trestle piles; plans, etc., on file, and from Div. Engr.

Fla., Lynn Haven—Bay County Comms., Panama City, plan building highway bridge across north arm of St. Andrews Bay, 3400 ft. wooden structure on pile bents, wooden truss.

Fla., Miami Beach Sta., Miami, Fla.—Details under Road and Street Construction.

Fla., Pensacola—Escambia County will receive bids soon to build bridge approach to Freedom Bridge. Address Engr. Wheat.

Fla., Tarpon Springs—Pinellas County let contract to American Bascul Bridge Corp., Pensacola, at \$30,000, for 358-ft. standard creosoted timber bridge, and single leaf steel lift span, 25-ft. clear channel; Benj. C. Scribner, Sub-Contractor, Tarpon Springs.

Fla., West Palm Beach—Palm Beach County will receive bids until Jan. 16 to build 140-ft. double leaf bascule draw, 50-ft. clear span bridge, steel approaches, concrete substructure across West Palm Beach Canal, on Military Trail; Chas. H. Holstlaw, County Engr. (Lately noted bids until Dec. 19.)

Ky., Whitesburg—Details under Road and Street Construction.

La., New Orleans—Board of Comms. will receive bids until Jan. 17 to furnish 213 tons structural steel and machinery, and erect double deck and approach span for Canal Street Ferry, J. H. Walsh, Gen. Mgr.

Miss., Jackson—City receives bids until Jan. 2 to build 380x50-ft. reinforced concrete bridge over cut-off channel; M. L. Culley, City Engr.

S. C., Charleston—Chamber of Commerce interested in building \$350,000 bridge across Pee Dee River at Yawhannah, linking Horry, Georgetown, Williamsburg and Charleston Counties; Major Alfred Huger, Pres.

S. C., Laurens—Laurens and Abbeville Counties plan building steel bridge across Saluda River at Erwin Mill. Address County Comms.

Tex., Angleton—Details under Road and Street Construction.

Tex., Dallas—Oak Cliff—Dallas Commercial Assn., interested in building vehicular viaduct to link east and west sides of Trinity River; estimated cost \$2,000,000, including \$100,000 for terminal facilities for structure; Nagle-Wit-Rollins, Engrs., Dallas.

Tex., El Paso—Stone & Webster, Inc., 147 Milk St., Boston, received general contract at \$150,000, for 467½-ft. long, 32½-ft. wide, reinforced concrete bridge across Rio Grande River into Juarez, Mexico; J. B. White, Supt. of Construction, 301 Martin Bldg., El Paso.

Tex., Fairfield—Details under Road and Street Construction.

Tex., Houston—Harris County plans expending, \$600,000 for concrete bridges; \$100,000 for bridge over ship channel; \$50,000 to pave Washington Ave.; voted \$750,000 bonds; Chester H. Bryan, County Judge.

Tex., Houston—Details under Road and Street Construction.

Tex., Waco—City let contract to Bart Moore Construction Co., Waco, Tex., at \$6450.40 for 2 concrete bridges over Waco Creek at 9th and 10th Sts.

W. Va., Charleston—City defeated \$200,000 bonds. Address Mayor Wertz. (Lately noted to vote.)

W. Va., Princeton—City is inviting bids to remodel bridge over Virginian R. R., on east side of city; W. A. Cooper, City Engr.

Canning and Packing Plants

Ga., Atlanta—Fair & Martin, Inc., have 2-story brick building for canning pimentos; will install machinery. Lately noted. (See Machinery Wanted—Pimentos Canning Machinery.)

Clayworking Plants

N. C., Leaksville—Leaksville Brick & Coal Co., capital \$50,000, incorporated by John Smith, E. D. McCall and others; will operate brick yard. (See Machinery Wanted—Railroad Equipment.)

Okla., Muskogee—Atlas Brick Co., capital \$150,000, incorporated by J. W. Bates, E. S. Hutton and others.

Coal Mines and Coke Ovens

Ky., Williamsburg—Perkins-Bowling Coal Corp., increased capital from \$300,000 to \$400,000.

Md., Baltimore—Consolidation Coal Co., offices in Baltimore and New York, will issue \$10,000,000 preferred stock.

Va., Tazewell—Red Ash Coal Corporation increased capital from \$200,000 to \$500,000.

W. Va., Logan—Clean Eagle Coal Co., capital \$200,000, incorporated by J. Cary Alderson, L. E. Steele and others.

Concrete and Cement Plants

S. C., Camden—J. H. Anderson, Route 4, Box 5, will install machinery for making concrete bricks and concrete novelties. (See Machinery Wanted—Concrete Block Forms.)

W. Va., McMechen—Standard Slag Co., office Youngstown, Ohio, reported to have acquired land in South McMechen and will

erect plant for the manufacture of cement from slag, obtained from furnaces of United States Steel Corp. at Benwood and Bellaire, Ohio.

Cotton Compresses and Gins

Tex., Bishop—Farmers' Gin & Ice Co., increased capital from \$24,000 to \$60,000.

Tex., Gatesville—Gatesville Compress & Warehouse Co., capital \$50,000, incorporated by A. S. Underwood, J. C. Wilson and others.

Cottonseed-Oil Mills

La., New Orleans—F. W. Conway, Atlanta, and M. E. Cahn, New Orleans, reported to have acquired properties of American Cotton Oil Co., and affiliated companies in Gretna, La.

Electric Light and Power Plants

Ala., Birmingham—Alabama Power Co., reported to have been granted authority by Alabama Public Service Comsn. to construct and install additional generating unit and other facilities at Warrior River reserve steam plant in Walker County; installation will include an additional 20,000 k.w. steam turbine electric generating unit together with all necessary boilers, machinery and appliances; cost about \$700,000.

Fla., Miami—Details under Land Developments.

La., Baton Rouge—Baton Rouge Electric Co., Tom P. Walker, Mgr., will expend \$24,000 in repairs and extensions to gas mains; will install new boiler and pump for spray pond; expects to construct new unit to power station later.

La., New Iberia—Details under Road and Street Construction.

N. C., Hayesville—Hayesville Light & Power Co., lately noted re-organized with T. D. Deweeae, Pres., has acquired plant of Public Service Co.; will develop 125 h.p.

N. C., Raleigh—Carolina Power & Light Co., increased capital from \$8,500,000 to \$12,000,000.

Tex., Marble Falls—C. L. Jones has been granted permission by State Board of Water Engineers of Texas, to increase height of dam in Colorado River to 3 ft. above present height; dam will impound several millions more gallons and will give power enough to operate textile mill.

Fertilizer Plants

Fla., Croom—Clarence Nelson of Bartow, Fla., has acquired established plant and will operate.

Flour, Feed and Meal Mills

Miss., Corinth—R. E. Long, Prop. of Dixie Mills has acquired building and will remodel for feed manufacturing plant.

Tenn., Memphis—Citizens Savings Bank of Paducah, Ky., has acquired Crown Rice Mill and will operate.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned

Gas and Oil Enterprises

Ark., Camden—Houston Oil Co., reported to construct \$750,000 refinery; daily capacity of 5000 bbls. of gasoline and kerosene.

Fla., Fort Myers — Details under Water Works.

N. C., Asheville—Koon Oil Co., capital \$50,000, incorporated by E. S. Koon, R. P. Simmons and others.

Okla., Tulsa—Star Producing and Royalty Co., capital \$100,000, incorporated by H. R. McGill, N. T. Gilbert and others.

Tex., Breckenridge—Souders & Fisher Co. will erect gasoline manufacturing plant; capacity for handling 20,000,000 cu. ft. of gas daily; cost about \$200,000; construction begun.

Tex., Corsicana—J. K. Hughes Developing Co., acquired gas and oil lands and will develop.

Tex., Kenedy—Kenedy Drilling Co., capital \$25,000, incorporated by C. L. Fain, P. H. Pickle and others.

Tex., Texas City—Knox Process Corp., New York, Leonard Stressman of Houston, representative, reported to erect gasoline refining plant.

W. Va., Charleston—Oil Service Co., increased capital from \$25,000 to \$75,000.

W. Va., Clendenin—Cromwell Oil & Gas Co., capital \$30,000, incorporated by W. L. Cromwell, James M. Gray and others.

W. Va., Milton—Berkley Oil Co., incorporated by J. A. Justice, H. I. Butts, and others.

W. Va., Peytona—Indian Creek Gas Co., capital \$25,000, incorporated by Leo T. Barnett, Kenneth Bradley and others.

Ice and Cold-Storage Plants

Fla., St. Petersburg—A. B. Hale of Tampa, and associates plan erection of 50-ton distilled ice plant.

Miss., Jackson—Morris Ice Co. lately noted to rebuild burned plant will soon let contract for building on Commerce St.; brick and steel.

Mo., Centralia—M. Fletcher, Sterling, Colorado, has site and will erect ice plant.

Tex., Athens—Hugh Drane Ice Co. let contract to Hawn Lumber & Construction Co. to erect electrically equipped ice plant.

Tex., Elgin—Elgin Power & Light Co. will let contract about Jan. 10 for construction of reinforced concrete and brick ice plant; cost \$15,000; Glesecke & Harris, Archts., Little Field Bldg., Austin, Tex.

Land Development

Fla., Lakeland—Burns Development Co., Nick Burns, general manager, acquired 175 acres, will develop.

Fla., Miami Beach Sta., Miami, Fla.—Details under Road and Street Construction.

Fla., Miami—Ruby A. Short and O. B. Short, 38 S. E. Second St. have acquired site and will develop for subdivision; will install roads and streets; water; sewers; electric lights, etc.

Fla., Miami—Capt. H. C. Tippet, interested in development of Nautilus golf course.

Fla., Miami — Carter Realty Co., capital \$100,000, incorporated with W. T. Carter, Pres.; E. J. Carter, Sec.; offices at 171 E. Flagler St.

Fla., Miami—H. R. Klein, Pres. of Home-site Development Co., acquired tract of 10 acres and will develop for subdivision.

Fla., Miami—Charles L. Ort acquired 40-acre tract and will develop for subdivision.

Fla., Orlando—A. R. Klein of Cleveland, Ohio, acquired 250 acres of land on Lake Barton; will develop for subdivision.

Fla., West Palm Beach—McDonald-Ware Company, organized by J. B. McDonald and Gordon Ware, will develop Palm Beach plantations for subdivision; will install drainage system; hard-surface roads; water works; erect dwellings, etc.

Ky., Louisville—Milliken Realty Co., capital \$20,000, incorporated by C. W. Milliken, R. M. Milliken and others.

Ky., Louisville—Fincastle Realty Co., capital \$100,000, incorporated by Lowry Watkins, C. H. Porter and others.

Ky., Pineville—L. L. Hamilton Realty Co., capital \$10,000, incorporated by L. L. Hamilton, Ewing Wilder and others.

Md., Baltimore—Joseph H. Pentz Co., Lexington Bldg., incorporated by Joseph H. Pentz, Peter E. Tome and others.

Md., Baltimore—Myropia Corp., 23 South St., capital \$10,000, incorporated by Geo. J. Twohy, Wm. J. Devon and others.

Md., Baltimore—Pelczar Realty Corp., 1706 Eastern Ave., capital \$50,000, incorporated by Michael Pelczar, Peter M. Siewierski and others.

Md., Frederick—Catoctin Country Club increased capital from \$25,000 to \$50,000.

Md., Laurel—Oaklands Stock Farms, Inc., capital \$100,000, incorporated by Henry C. Lank, Ross H. Pratt and others.

Md., Principio Furnace—Principio Furnace Cemetery Association, incorporated by Newton W. Anderson, L. Layfield Jackson and others.

Miss., Jackson—Jackson Development Co., capital \$50,000, incorporated by E. H. Spangler, J. O. Fegura and others.

Mo., Kansas City—Cook Investment Co., incorporated by C. R. Cook, R. B. Caldwell, 731 Scarritt Bldg., and others.

Mo., St. Louis—Hays-Orme Real Estate & Investment Co., incorporated by W. A. Orme, J. W. Hays and others.

Mo., St. Louis—Lee-Gold Realty & Holding Co., capital \$25,000, incorporated by Wm. B. Levy, Jacob Goldman and others.

Mo., St. Louis—Victoria Land Co., incorporated by F. C. Donnell, 55 Joy Ave., Webster Groves, Mo.; Thos. F. McDonald, 4489 Washington Blvd., and others.

Mo., St. Louis—Frank W. Schramm Co., 919 Chestnut St., incorporated by Hy. T. Bricknirth, Jos. E. Conroy and others.

Mo., St. Louis—Clemdel Realty & Investment Co., incorporated by C. B. Turner, A. L. Moeller and others.

Mo., Wellston—Wellston Realty Co., incorporated by Herman Tegethoff, Clarence J. Frankey and others.

N. C., Charlotte—Myers Park Country Club, R. W. Dulin, Sec., will probably issue \$60,000 bonds for additional grounds and equipment for golf course.

N. C., Charlotte—Charlotte Country Club, C. A. Mees and Fred M. Laxton, Committee, considering development of additional 18 hole golf course and laying water pipe line.

N. C., Cherryville—Mauney Land Co., capital \$50,000, incorporated by M. L. Mauney, T. C. Summer and others.

N. C., Conottee—N. B. Dawson Co., capital \$50,000, incorporated by E. L. and N. B. Dawson and others.

N. C., Reidsville—Reed Realty Co., capital \$50,000, incorporated by G. M. Reed, G. W. Faucette and others.

N. C., Wilmington—Fred A. Matthes has acquired and will develop 5000 acres of swamp land.

Tenn., Memphis—Park Avenue Land Co., incorporated by Ralph Jurden, Sam. P. Walker and others.

Tenn., Memphis—R. M. Hammond and associates interested in development of 61-acre tract at Riverside Ave. and Parkway.

Tenn., Nashville—Morse Realty Co., increased capital from \$30,000 to \$50,000.

Tex., Houston—Friends Wood Orchards Co., capital \$20,000, incorporated by O. W. Willets, M. S. Drake and others.

Tex., Lubbock—Joe Hess and associates will develop Hess Addition for subdivision; Myers & Noyes, Engrs., Dallas, Tex.

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MANUFACTURERS RECORD

BALTIMORE, MD.

Tex., Mineral Wells—W. A. Fitts and E. R. Holland leased 73 acres and will develop for complete tourist park; will construct swimming pool, tennis courts and install lights, etc.

Va., Richmond—Richmond Motor Speedway, Inc., L. W. Gillespie, Treas., will develop about 300 acres for factory sites.

Va., Roanoke—Red Apple Orchard Corp., increased capital from \$25,000 to \$35,000.

W. Va., Charleston—City defeated \$450,000 bonds for parks, and public buildings. Address Mayor Wertz. (Lately noted to vote.)

W. Va., Fairmont—Wm. S. Swiger of Fairview has acquired 7 acres and will develop for subdivision.

W. Va., Huntington—Arlington Land Co., acquired 133 acres of land and will develop for subdivision.

W. Va., Welch—Jaeger Yard Land Co., capital \$50,000, incorporated by E. W. Cullen, Moses Hyman and others.

Lumber Enterprises

Ky., Louisville—Clouderoft Lumber & Land Co., increased capital from \$10,000 to \$350,000.

Ky., Salt Lick—Salt Lick Lumber Co., increased capital to \$150,000.

N. C., Azalea—S. Sternberg, High Point, N. C. has acquired plant of McEwen Lumber Co.

N. C., Gastonia—T. A. Henry Lumber Co., will erect plant; main building 50x100 ft.; warehouses, offices and sheds.

Tenn., Memphis—Fisher-Hurd Lumber Co., O. P. Hurd, Pres. and Gen. Mgr., reported to have acquired 100,000 acres of standing timber in Tennessee, Arkansas, Louisiana and Mississippi; property includes logging and sawmill facilities and will yield about 750,000,000 ft. of hardwood timber; company will be a subsidiary of the Fisher Body Corp., Detroit, Mich.

Tex., Hartburg—Siler-Burns Lumber Co., increased capital from \$25,000 to \$40,000.

Mining

Ala., Birmingham—Stockbridge Stone Co., capital \$75,000, incorporated by E. M. Hamill, R. A. Love and others.

Ala., Montgomery—Good Roads Gravel Co., lately noted incorporated with \$50,000 capital; organized with W. B. Moberly, Pres.; is operating sand clay gravel pit 9 mi. west of Montgomery; output 100 cars daily.

Ark., Fayetteville—H. Edward Smith, Mgr., Box 522, has acquired about 400 acres of lead, zinc and gold deposits and will develop; will install hoisting and grinding machines. (See Machinery Wanted—Hoisting and Crushing Machines.)

Fla., Ocala—A. C. Blower will rebuild lime kiln and phosphate plant, lately noted burned at loss of \$30,000.

Mo., Joplin—Kansas Explosives, Inc., capital \$18,000, incorporated with Clinton H. Crane, Pres.; Leonidas H. Besson, Sec.

Okl., Miami—Amiesite Asphalt Co., capital \$10,000, incorporated by James F. Robinson, Geo. W. Beck, Jr. and others.

Tenn., Madisonville—Parium Mining Co., capital \$40,000, incorporated by W. I. Fogleman, S. T. Jones and others.

Tex., Dallas—American Sulphur & Fertilizer Co., J. A. Price, Pres., leased site and will erect plant for crushing ores in dry state.

Va., Staunton—Virginia Consolidated Lime Co., R. E. Christian, Sec., (lately noted incorporated, capital \$150,000) has under development 150 acres, present output

50 tons; Arnold & Wiegler, Const. Engr., Woodville, Va.

Miscellaneous Construction

Fla., Miami Beach Sta., Miami, Fla.—Bulkhead—Details under Road and Street Construction.

Fla., West Palm Beach—Seawall—City Council voted additional appropriation of \$75,000 for erection of seawalls. (Lately noted as having \$25,000 available.)

Ga., Savannah—Gulf Refining Co. will construct bulwark at plant on Hutchinson Island to prevent inroads.

La., New Orleans—Wharf—United Fruit Co. will advance \$1,000,000 to Dock Board for construction of wharf at head of St. Joseph St.; wharf to be used by the United Fruit Co.; company is also expending \$3,000,000 for reconditioning of ten passenger vessels.

Md., Baltimore—Board of Awards let contract to Howard O. Florer, 1707 W. Pratt St., at 59 cents cu. yd. for removal of 50,000 cu. yds. of earth from Mount Royal Reservoir embankment.

Miss., Gulfport—Port Comsn. have invited bids for construction of 1400 ft. breakwater at south entrance of harbor; breakwater will be about 5 ft. above the surface of the sea and will be constructed of creosoted wood piling and stone; cost about \$50,000; Earl North, U. S. Engr., Mobile, Ala. (Previously noted.)

Tenn., Memphis—Subway—List & Weatherly Co., Kansas City, Mo., has contract for excavating work for new Bellevue Ave. subway, involving removal of 90,000 cu. yds. of earth and constructing tunnel 1800 ft. long; O. R. Belles, Supt. of Construction.

Va., Norfolk—Pier Warehouse—City, W. B. Causey, Mgr., receives bids until Jan. 16 for material and labor for constructing superstructure of pier warehouses at Municipal Terminal at Sewalls Point on the Elizabeth River; plans, etc., at offices of Folwell-Ahlskog Co., 600 Seaboard Bank Bldg., Norfolk and at 323 N. Michigan Ave., Chicago.

Va., Richmond—Richmond Motor Speedway, Inc., L. W. Gillespie, Treas., has acquired 1244 acres of land and will build an automobile speedway 1½ mi. long; will also construct stadium with minimum seating capacity of 20,000 persons.

Miscellaneous Enterprises

Ala., Atmore—A. E. Pouney of Molina, Fla., has building and will install bakery on N. Main St.

Ala., Huntsville—Huntsville Star Publishing Co., incorporated by Edward Doty, and others; will publish morning paper.

Ark., El Dorado—Daily Tribune Publishing Co., capital \$100,000, incorporated with Clyde Martin, V.-P.; Ben F. Mueller, Treas.

Ark., Fort Smith—C. P. Zenor will rebuild burned glass plant.

Ark., Fort Smith—Ball Bros., Muncie, Ind., will establish fruit jar manufacturing plant on 25-acre site.

Florida—Charles V. Sparkhawk, Pres., of Sparkhawk Corp., New York and Newark, N. J., reported as considering establishment of plant in Florida to manufacture perfume.

Fla., Crawfordville—R. L. Crawford, is president of company incorporated with \$100,000 capital to establish seafood cannery.

Fla., Jacksonville—Bennett's Hat Factory, Inc., 123 S. Broad St., A. L. Bennett, Pres., has building for manufacture of felt and velvet hats, etc., and will install machinery. Lately noted. (See Machinery Wanted—Cap Making Machinery, etc.)

Fla., Miami Beach Sta., Miami, Fla.—Fire Alarm System—Details under Road and Street Construction.

Fla., St. Petersburg—The Independent, Major Lew B. Brown and L. C. Brown, owners, will install duplex tubular press, remodel building, etc.

Ga., Atlanta—Brower Candy Co., has acquired site on Butler St. and will erect 5-story factory; cost \$50,000.

Ga., Valdosta—Walker Pine Products Co., will erect \$100,000 plant addition.

Ky., Carrollton—Golden Leaf Co., capital \$50,000, incorporated by J. L. Donaldson, H. R. Lorch and others.

Ky., Jackson—North Fork Construction Co., capital \$40,000, incorporated by Madison T. Bach, H. H. Miller and others.

Ky., Louisville—Safety Motor Carriers, incorporated by W. A. Kittrell, John S. Kelly, Jr. and others.

Ky., Louisville—Folk & Co., incorporated by Harry S. Ford, Wm. H. Folk and others.

Ky., Ludlow—R. B. Curran & Sons Co., increased capital from \$50,000 to \$100,000.

Ky., Madisonville—Coca-Cola Bottling Co., No. 5, capital \$30,000, incorporated by Edward L. Henry, John F. Carson and others.

Ky., Maysville—Fitzgerald-Rapier Co., capital \$30,000, incorporated by George H. Fitzgerald, J. D. Rapier and others.

La., New Orleans—Transportation—Algiers Public Service Co., Inc., August Schabel, Pres.; will expend \$250,000 for construction of boats; 150x67 ft.; will install Mississippi River steamboat engines and boilers; opens bids Jan. 3; Warren Johnson, Archt., Patterson & Seguin Sts. (Lately noted.)

Md., Baltimore—Hundley, Ewing & Booker Inc., 402 Fallsaway, chartered by Arthur F. Hundley, H. Gordon Ewing and others.

Md., Baltimore—American Maritime Cases, Inc., 1300 N. Calvert St., chartered by Emory H. Niles, Arnold W. Kanuth and others.

Md., Baltimore—Electric Power Co., 104 S. Gay St., incorporated by Jos. H. Cox, Frank G. Goudy and others.

Md., Baltimore—Baltimore Coca-Cola Bottling Co., 408 N. Calvert St., increased capital from \$250,000 to \$1,250,000.

Md., Baltimore—Physicians' Surgical Dressing House, 216 W. Franklin St., capital \$10,000, incorporated by Roland F. Smith, May S. Grinsfelder and others.

Md., Baltimore—New Annex Building Corp., 200 E. Lexington St., incorporated by Michael S. Blair, Joseph Wielgosz and others.

Md., Baltimore—Walker Plastering Machine Co., 459 Calvert Bldg., capital \$250,000, incorporated by Dunaway H. Walker, Walter T. Ott and others.

Md., Baltimore—Hunt Manufacturing Co., 116 Hollingsworth St., capital \$100,000, incorporated by Wm. J. Hunt, Adam J. Kries and others.

Md., Baltimore—Anglo-American Molasses Co., 1814 Munsey Bldg., incorporated by John F. Harper, Irving B. Delcher and others.

Md., Baltimore—Southern Construction & Development Co., 543 Calvert Bldg., incorporated by Melvin H. Naiman, Samuel J. Keiser and others.

Md., Cumberland—McElfish Taxi Co., Inc., 110 S. Mechanic St., capital \$50,000, incorporated by Roscoe T. and Millard F. McElfish.

Md., Cumberland—The C. A. Borchert Co., 127 N. Centre St., lately noted incorporated with \$20,000 capital. C. A. Borchert, Pres., has plant for manufacturing cut glass and will install cutting machines.

Md., Frederick—Everedy Company, capital \$100,000, incorporated by Harry J. Lebherz, and others; have acquired Everedy Bottle Capper Co.'s plant and Sterling Plating Works; will operate; later installing silver plating equipment.

Md., Frostburg—The Prichard Co., capital \$100,000, incorporated by Enoch Deaven, Prichard, John Stanley Prichard and others.

Md., Hagerstown—Eldridge-Gary Co., capital \$100,000, incorporated by Milton H. Strite, Russell A. Eldridge and others; will absorb Clover Dairy Co. and Maryland Dairy Co.

Md., Rowlandsville—Morocco Roofing Co., incorporated by John W. Moore, Frank B. Ross and others.

Miss., Hattiesburg—Hattiesburg Creosoting Co., increased capital to \$1,000,000.

Miss., Moss Point—Southern Paper Co. is enlarging and remodeling plant; let contract to Standard Electric Co., New Orleans, La., for complete electrification of factory.

Miss., Prentiss—Jones Bros., capital \$65,000, incorporated by W. V. Jones, Prentiss; W. O. Jones, McComb City, Miss.

Mo., Kansas City—Board of Trade Building Co., capital \$300,000, incorporated by Joseph A. Bruening, Elizabeth York and others.

Mo., Kansas City—Scopometer Co., capital \$200,000, incorporated by Geo. W. Doss, Kansas City; A. D. Lyon, Topeka, Kan. and others.

Mo., Kansas City—Iten Biscuit Co., general offices at Omaha, Neb., has site 175x131 ft. on east side of Madison St. and will erect 2-story and basement building for distributing branch and warehouse.

Mo., Marysville—Sanitary Swimming Pool, Inc., capital \$12,000, incorporated by Geo. W. Aley, Wm. F. Phares and others.

Mo., Monett—Wm. Frederick Cigar Co., capital \$50,000, incorporated by James E. Sater, Joseph E. Rucker and others.

Mo., Pleasant Green—Farmers Co-Operative Exchange of Pleasant Green, capital \$10,000, incorporated by F. A. Bonen, E. W. Hite and others.

Mo., Saint Johns Station—Blue Pump Manufacturing Co., capital \$20,000, incorporated by C. G. Holt, Birdie Ave., St. Johns Station; Oregon Holt, 4010 Newstead Ave., St. Louis, Mo. and others.

Mo., St. Joseph—Corrugated Culvert Co., of Moberly, Mo., has site and will erect plant.

Mo., St. Louis—Selser & Ballantyne Co., capital \$18,000, incorporated with W. K. Ballantyne, Pres.; J. E. Tracey, Sec.; will manufacture leather goods.

Mo., St. Louis—United Accounting Machines, Inc., A. Bauman, Pres., has acquired building at 106 S. 9th St., and will improve and erect addition; will manufacture calculating machine.

Mo., St. Louis—Jack Rabbit Candy Co., capital \$10,000, incorporated by E. A. Tuschmidt, H. H. Hill and others.

Mo., St. Louis—Missouri Rolling Mill Corp., will erect 1-story, steel storage and manufacturing plant at 2324 Ecoff St.; owner architect and builder.

Mo., St. Louis—Sanitary Preserving Co., capital \$10,000, incorporated by H. S. Rand, B. J. Vollmer and others.

Mo., St. Louis—Broadway Warehouse Co., capital \$300,000, incorporated by Lewis E. Balson, J. Wm. Davis and others.

Mo., Willow Springs—Willow Springs Creamery Co., capital \$200,000, incorporated with Edwin Kirschbraun, Pres.; H. S. Heavlich, Sec.

N. C., Asheville—L. L. Merchant Construc-

tion Co., 290 Biltmore Ave., capital \$50,000, incorporated by L. L. Merchant, B. H. Harris and others.

N. C., Asheville—Asheville Baking Co., Roger A. Grant, Pres., will erect bakery on Choctow St., 2 stories and basement; 90x90 ft.; brick and steel; will contain 3 basement fired ovens, modern proofing room, automatic wrapping and sealing machine, mixers, etc.; storage department; will contain separate rooms for flour, wheat, etc.; cost \$100,000; general contract let to Sutherland Building and Construction Co.; sub-contractors Union Plumbing Co.; Ward Electric Co.; and Otis Elevator Co.

N. C., Charlotte—Clasgow-Stewart & Co., changed name from Ko-Mo Supply Co. and increased capital from \$100,000 to \$300,000.

N. C., Charlotte—Charlotte Bedding Co., capital \$75,000, incorporated by E. O. Bacon, Query Pharr and others.

N. C., South Mills—Seligman, Williams & Wall, Inc., capital \$125,000, incorporated by D. E. Williams, of South Mills; S. G. Seligman, Tamaque, N. C. and others.

Okla., Muskogee—Bob Throckmorton Co., incorporated by R. R. Throckmorton, P. M. Mitchell and others.

Okla., Oklahoma City—Dupuis & Underwood, capital \$50,000, incorporated by A. P. Dubois, C. S. Underwood and others.

Okla., Oklahoma City—Maywood Pharmacy, capital \$15,000, incorporated by William J. Armstrong, Claude E. Aiken and others.

Okla., Tishomingo—Johnson County Free Press, incorporated by M. L. Misenheimer, J. W. Gregg and others.

S. C., Charleston—Marine Constructing & Towing Co., changed name from Marine Contracting Co., and increased capital from \$5000 to \$100,000.

Tenn., Chattanooga—Southern Ferro-Alloys Co., increased capital from \$210,000 to \$300,000.

Tenn., Chattanooga—American Lava Co., increased capital from \$100,000 to \$200,000.

Tenn., Dayton—Hold-Pack Manufacturing Co., W. E. Morgan, has building for the manufacture of fasteners for round bushel shipping baskets, daily output 2000 doz.; will install one stapling, one stamping machine and one machine for forming 14 gauge wire. (See Machinery Wanted—Wire (Common Black; Strap Iron).)

Tenn., Dayton—Hold Pack Manufacturing Co., capital \$10,000, incorporated by E. N. Keith, J. H. Brown and others.

Tenn., Dickson—Dickson Development Co., J. S. Johnson, Sec., will erect building 3 stories, 60x120 ft., ordinary construction; building will be occupied by American Cigar Co.

Tenn., Knoxville—Burdett Oxygen Co., Chattanooga, Tenn., E. A. Faulhaber, V-P., has site and will erect plant for manufacture of liquid oxygen; cost \$100,000.

Tenn., Knoxville—City Coal Co., incorporated by L. E. Allison, R. Warnick and others.

Tenn., Memphis—Stratton-Warren Hardware Co., increased capital from \$1,500,000 to \$1,750,000.

Tenn., Memphis—Superior Ice Cream Co., capital \$50,000, incorporated by A. J. Cook, Clyde Washburn and others.

Tenn., Memphis—Bohlen-Huse Coal & Ice Co., increased capital from \$200,000 to \$1,450,000.

Tenn., Memphis—Little & Dean, Inc., 207 Builders Exchange, capital \$60,000, incorporated by C. S. Little, J. T. Dean and others.

Tenn., Memphis—E. A. Guilfoyle Co., in-

creased capital from \$20,000 to \$50,000.

Tenn., Memphis—Tri-State Hotel Operating Co., capital \$250,000, incorporated by Joseph A. Isele, J. Walter Canada and others.

Tenn., Union City—News-Banner Publishing Co., Inc., lately noted incorporated with \$15,000 capital, organized with John A. Waddell, Pres.; establish newspaper publishing and job printing plant.

Tex., Amarillo—Amarillo Globe Publishing Co., Carl Brown, Pres., has newspaper plant and will install second-hand equipment.

Tex., Austin—Barrett Hardware Co., capital \$15,000, incorporated by S. W. Barrett, A. R. Farrell and others.

Tex., Cleburne—Times Publishing Co., capital \$15,000, incorporated by J. N. Eickers, L. H. Goldman and others.

Tex., Dallas—Cotton Lands Co., incorporated by W. P. Soash, A. E. Harp and others.

Tex., Dallas—Fuller Construction Co., increased capital from \$25,000 to \$125,000.

Tex., Jefferson—Bennett Manufacturing Co., incorporated by E. W. Bennett, B. F. Rogers and others.

Tex., Eagle Pass—Colorado County Live Stock Co., capital \$20,000, incorporated by J. N. Lee, W. J. Wright and others.

Tex., Fort Worth—Drane-Humphreys Co., capital \$40,000, incorporated by F. M. Drane, S. H. Humphrey and others.

Tex., Fort Worth—Parker-Browne Co., Inc., 1210 E. Front St., let contract to C. E. Hodge, 9 Main St., Fort Worth, at \$79,000 to erect 3-story and basement building, **reinforced concrete and brick**, 50x140-ft., concrete slab flooring, will install metal doors, vaults, vault lights, steel sash and trim, wire glass, etc.; desire sub-bids on plumbing, heating and wiring; address Contractor. (Lately noted.)

Tex., Fort Worth—Bay River Production Co., capital \$50,000, incorporated by J. O. Hart, A. B. Ham and others.

Tex., Houston—Meyer Corporation, capital \$75,000, incorporated by G. B. Meyer, F. K. Meyer and others.

Tex., Lamesa—Dawson County Poultry Colony, will erect hatchery with capacity of 10,000 eggs; plant will be constructed in units; breeding and laying houses 30x40 ft., equipped with self-feeding hoppers and automatic drinking fountains; Sydney C. Lackland, will have charge.

Tex., Lufkin—Lufkin Amusement Co., increased capital from \$10,000 to \$45,000.

Tex., San Antonio—West Texas Elevator & Grain Co., capital \$30,000, incorporated by F. V. Hall, J. H. Story and others.

Tex., San Antonio—Woodward & Hardie, Inc., chartered by D. J. Woodward, Jr., Grace Hardie and others.

Tex., Waskom—Abney-Jones Co., capital \$30,000, incorporated by C. M. Abney, G. L. Jones and others.

Va., Norfolk—Cole-Beale Cigar Co. changed name from E. F. Beale and Sons, Inc., increased capital from \$30,000 to \$50,000.

Va., Roanoke—Universal Envelope & Printing Co., Inc., capital \$25,000, incorporated with L. W. Harvey, Pres.; T. S. Wright, Sec.

Va., Salem—Quality Bakery, Inc., incorporated with H. A. Oakley, Pres.; C. E. Daner, Sec.

Va., Winchester—National Fruit Products Co. will rebuild plant, lately noted burned at loss of \$50,000.

W. Va., Beckley—Beckley Printing Co., increased capital from \$25,000 to \$75,000.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned

Motor Cars, Garages, Tires, Etc.

Fla., Jacksonville—Ford Motor Co., Detroit, Mich. invites bids from local contractors on blue prints for construction of plant, main building to be 200x500-ft., steel frame, enclosed with brick, concrete and hollow tile, plant will probably include power plant, oil tanks and other construction work; reported that contracts will be awarded in Detroit. (Lately noted.)

La., Baton Rouge—Garage—D. E. McInnis will erect 2 story garage building, corner Convention and Church Sts., brick construction; building to be occupied by Davis Chevrolet, Inc.

Md., Baltimore—James Keelty, 600 Edmondson Ave., will erect ninety 1-story brick garages in rear of 508 Edgewood St., and thirty-six 1-story brick garages in rear of 600 Grantley St.; Fred E. Beall, Archt., 306 St. Paul St., owner builder.

Md., Cumberland — Bohman Motor Co., capital \$125,000, incorporated by Geo. M. Bohman, Otto P. Bowman and others.

Mo., Kansas City—Ford Motor Co. let contract at \$400,000 to J. R. Vansant Construction Co. for structural work on new unit of plant; contract includes addition to power plant as well as assembling building; Mississippi Valley Structural Steel Co., St. Louis, Mo., has contract for steel work.

Mo., Kansas City—Kern Motor Co., capital \$10,000, incorporated by R. C. Kern, Hugo F. Lind and others.

Mo., St. Louis—Downtown Garage Co., will erect 300-car garage on 7th St.; fireproof; 3 stories with six levels, two halves of each floor being at different levels; will use ramp system for moving cars; 3 front and 3 side entrances; will install passenger elevators; cost about \$700,000; George E. Wells, Consult. Engr., Boatmen's Bank Bldg.

Mo., St. Louis—Jett & Mautz Co., incorporated by H. W. Jett, J. M. Mautz and others.

N. C., Tryon—Kilpin Motor Co., capital \$100,000, incorporated by Waldemar E. Kilpin, C. E. Hagaman and others.

N. C., Wadsworth — Coke Chevrolet Co., capital \$100,000, incorporated by L. D. Robinson, Jr., E. M. Cooke and others.

Okla., Keystone—G. W. Cox will rebuild burned building occupied by G. W. Cox.

Okla., Muskogee—Nolan Truck Co., capital \$2,000,000, formed by merger of O. K. Truck Co. and Royal Rex Co., of Chicago, Ill., Wm. H. Nolan, Pres.; will manufacture trucks in knock-down form.

Tenn., Chattanooga—A. Fassnacht & Sons let contract to T. S. Moudy & Co., to erect brick and steel garage building on West 13th St., cost \$21,000.

Tenn., Chattanooga—Citizens Automobile Co., let contract to Mark K. Wilson, to erect garage building on McCalle St., 1 story brick; cost \$25,000.

Tenn., Chattanooga—Nelson-Pate Tire Co., organized by F. T. Nelson and B. M. Pate.

Tenn., Knoxville—Clinch-Locust Garage Co., will erect garage and auto storage building corner of Locust St. and W. Clinch Ave.; 2 stories; L-shaped; concrete and structural steel; capacity for 275 automobiles; cost \$75,000.

Tex., Dallas—Ford Truck & Body Depot, capital \$10,000, incorporated by T. E. Cranfill, F. M. Edwards and others.

Tex., Marshall—Lee Hawley let contract to Frank Moos, Gen'l. Cntrs., Marshall, to erect garage; 92x132 ft.; mill construction; C. G. Lancaster, Archt., Marshall. (Lately noted.)

Tex., Martindale—Martindale Motor Corp., A. H. Smith, Pres., will erect 20x80 ft. garage; 2 stories; brick; cost \$25,000; W. A. Veltor, Archt., Lockhart, Tex.; will open machinery proposals Jan. 2 (Lately noted.)

W. Va., Belington—Beard Motor Co., capital \$25,000, incorporated by D. R. Beard, George Cull and others.

W. Va., Charleston—Charles Midelburg will erect automobile sales room and service station corner of Dunbar and Virginia Sts.; cost \$30,000, construction begun.

W. Va., Keystone—Elkhorn Motor Co., H. W. Hicks, owner, Pocahontas, Va.; will erect garage building; 1-story, 60x85 ft., to provide for additional stories later; fireproof; cost \$20,000; will install Ford shop equipment; will open building proposals about Feb. 15. (Lately noted.) (See Machinery Wanted—Building Materials; Heating System; Plumbing; Electric Fixtures.)

Railways

Tenn., Bulls Gap—Southern Railway has applied to the Interstate Commerce Commission for authority to build an extension from Bulls Gap to Leadville, Tenn., 17 mi.; T. H. Gatlin, Washington, D. C., is Ch. Engr. of Constr.

Railway Shops, Terminals, Round-houses, Etc.

Ala., Birmingham—Southern Railway Co., authorized Dwight P. Robinson & Co., Inc., New York to design and construct extensive additions to railway shops; work includes locomotive repair shops, boiler and blacksmith and mill shops, power plant and other buildings.

Road and Street Construction

Ala., Eufaula—City will receive bids until Jan. 15 for 8000 sq. yds. concrete sidewalks, and 38,000 lin. ft. concrete curb, complete; plans, etc. from T. C. Doughtie, City Clk.; H. H. Conner, Mayor.

Ala., Montgomery—Montgomery County, Board of Revenue, will receive bids until Jan. 21 to grade and drain 5 mi. road connecting Pike road, Mount Meigs road, with Vaughan road; plans, etc., from Thos. H. Edwards, County Engr.

Ala., Talladega—City will receive bids until Jan. 15 for grading, laying curb, gutters and sidewalks on East and South Sts.; storm and sanitary sewers, and 17,000 yds. of following alternates: Plain and reinforced concrete; Warrenite bitulithic; asphaltic concrete, vitrified brick; plans, etc., from Robert L. Totten, Consult. Engr., Birmingham. (Lately noted.)

Ark., Pine Bluff—Jefferson County Comms. plan 22 mi. hard surfaced road connecting Plum Bayou, Ferda and Tucker, and joining England road at Lonoke County line.

Fla., Arcadia—De Soto County plans improving roads, and building county jail; will vote Feb. 2 on \$280,000 bonds. Address County Comms.

Fla., Bartow—Polk County plans building 106 mi. 15-ft. asphalt road and widen 9-ft. roads to 15 ft.; will vote Feb. 26 on \$3,600,000 bonds; W. S. Wev, Deputy Clk.; Board of County Comms. (Lately noted.)

Fla., Brooksville—Hernando County Comms., plan building 70 mi. rock asphalt roads; voted \$450,000 bonds.

Fla., Bushnell—Sumter County plans building 7 roads, totaling 60 mi.; will vote Jan. 30 on \$650,000 bonds. Address County Comms.

Fla., Fort Myers—City plans street paving, vitrified brick, or other standard pavement;

voted \$378,000 bonds; Geo. S. Iredell, City Engr.

Fla., Jacksonville—City contemplates widening Kingsley St. to 50 ft.; will receive bids soon to lay sidewalks on driveway through Riverside Park. Address The Mayor.

Fla., Madison—Madison County plans improving 6 roads as follows:

30 mi. State Road No. 1, from Madison to Jefferson County line, on Pensacola-Jacksonville road, cost \$63,690; 12 mi. Road No. 2, connecting Lee with Dowling Park, Mayo and all points east and west, cost \$22,400; 14 mi. State Road No. 4 from Madison to Georgia line, cost \$28,050; 17 mi. Road No. 5, connecting Madison, Lovett, Quitman, Thomasville, and all points north and west, cost \$33,000; 6 mi. Road No. 6, from Greenville to Jefferson County line, connecting with Ashville, Monticello and points north and west, cost \$12,500; 14 mi. Road No. 7, from State Highway No. 1, east of Greenville to Georgia line, connecting Greenville with Quitman, cost \$28,710. Address County Comms.

Fla., Miami—Details under Land Developments.

Fla., Miami Beach Sta., Miami, Fla.—City plans municipal improvements and will vote Jan. 21 on \$307,000 bonds, as follows: Extend and develop waterworks, \$100,000; sanitary sewers, \$50,000; storm sewers, \$20,000; bridge over Collins Canal at Meridian Ave., \$13,500; concrete bulkhead, \$17,500; park improvements, \$25,000; fire alarm system and fire station, \$40,000; paving streets, \$40,000. Address The Mayor.

Fla., Monticello—State Road Dept., Tallahassee, Fla., will receive bids until Jan. 8 to grade, construct drainage structures, and sand-clay surface 9.45 mi. Road No. 1 Jefferson County, Project No. 598; plans, etc., on file; J. L. Cresap, State Highway Engr.

Fla., Orlando—City plans street paving; contemplates \$100,000 bond issue. Address The Mayor.

Fla., Seabreeze—Town plans grading north end of Atlantic Ave. north of University Blvd; P. D. Gold, Mayor.

Fla., Starke—State Road Dept., Tallahassee, Fla., will receive bids until Jan. 15 to hard surface road with plain cement concrete, asphaltic concrete, sheet asphalt and bituminous macadam on rock base and 8-in. rock base only, including concrete curb and gutter, 3 road projects in Bradford County as follows: 7.3 mi. on Road No. 13, Project No. 572; 9.1 mi. on Road No. 13, Project No. 594; drainage structures 5.1 mi. on Road No. 13, Project No. 607; plans, etc., on file, and from Div. Engr.; J. L. Cresap, State Highway Engr.

Fla., West Palm Beach—Details under Land Development.

Ga., Atlanta—Fulton County, will receive bids until Jan. 4 to lay sheet asphalt wearing surface on present granite block paving on Harris St. from Piedmont to Peachtree, and from Spring to Luckie Sts.; plans, etc. from C. M. Hillond, Pur. Agt. 507 Court House Atlanta.

Ky., Whitesburg—Letcher County plans road and bridge building; plans voting March 15 on bonds. Address County Comms.

Louisiana—Louisiana Highway Comn., Raymond Bldg., Baton Rouge, will receive bids until Jan. 22 for 3 gravel roads in Evangeline Parish, as follows: Project 379-A, 5.70 mi. Opelousas-Oakdale Highway, from Ville Platte southeast to St. Landry Parish line; 379-B, 9.18 mi. Opelousas-Oakdale Highway, from Ville Platte west to Rock Island R. R.; 380-A, 11.54 mi. Eunice-LeCompte Highway, from St. Landry Parish line near Eunice to intersection with Project 379-B,

at Rock Island crossing; plans, etc., on file; J. M. Fourmy, State Highway Engr.

La., Baton Rouge—City will receive bids until Jan. 29 to lay 102,296 sq. yds. surfacing and base on 16 streets; asphaltic concrete, brick, sheet asphalt and Warrenite bitulithic, all on concrete base; 20,311 lin. ft. curb and gutter; 3 manholes; 56 catch basins; 2180 lin. ft. stone headers; 27,680 cu. yds. excavations; plans, etc., from J. W. Billingsley, Const. Engr.

La., Monroe—City plans 15 mi. street paving; Arnold Bernstein, Mayor.

La., New Iberia—City plans building gravel road to sea; electric plant, and other improvements; contemplates \$250,000 bond issue. Address The Mayor.

Md., Baltimore—Board of Awards let contract to F. O. Firor, 1707 W. Pratt St., at 59 cents per cu. yd. to remove 50,000 cu. yds. earth embankment from Mount Royal Reservoir; will level reservoir; straighten driveway leading into Druid Hill Park on North Ave.; lay out an elliptical parking space at upper end of drive; widen and embellish Mount Royal Ave. entrance of Park; Mayor Howard W. Jackson, Pres.

Md., Baltimore—Paving Comm., R. Keith Compton, Chmn., 214 E. Lexington St., plans paving streets in 5 sections as follows:

In area south of Patapasco Ave., between 6th and 9th Sts., Brooklyn, Richard Keating, 16 St. Paul St., developer; Winans Way; Drinkwood, Dryden and Briarcliff Roads; Montebello and Ivy Aves., Geo. R. Morris Organization, Morris Bldg., developer; Linnard, Lyndhurst, Franklin and Alendale Sts., James Kealty, 3600 Edmondson Ave., developer; Highgate Drive and Parkington Ave., Cityco Realty Co., 7 St. Paul St., developer; Rayner and Harlem Aves., Isaac Rosenthal, 2034 W. Fayette St., developer; Comm., also plans paving Singer Ave. from Reisterstown road to Park Heights Ave.

Md., Baltimore—State Roads Comm., 601 Garrett Bldg., will receive bids until Jan. 15 to pave with concrete 1.72 mi. Park Heights Ave. from Keyworth to Avondale; John N. Mackall, Chmn. of Comm. (Previously noted.)

Miss., Columbus—City plans street paving, sewerage extension, and laying water main from power station to city; Robert L. Totten, Const. Engr., Birmingham, Ala.

Miss., Jackson—Hinds County will receive bids until Jan. 8 to lay concrete paving, on concrete base with bituminous surface on 3 roads as follows: .9 mi. Terry road; .9 mi. Clinton road; .9 mi. Canton road; W. B. Montgomery, County Engr. (Lately noted bids until Dec. 5.)

Miss., Jackson—City and Illinois Central R. R. Co., plan re-paving streets and elevating railroad tracks; approximate cost \$1,250,000 to \$1,500,000; F. L. Thompson, Ch. Engr. I. C. R. R. Co., Chicago, Ill., and M. L. Culley, City Engr.

Mo., Clayton—City let contract to C. S. O'Hara, 6424 Leschen Lane, Welston, Mo., for 2800 lin. ft. 4-in. sidewalks.

Mo., Richmond Heights—City receives bids until Jan. 2 to grade and pave Bellevue Ave. Address City Clk.

Mo., Springfield—City plans widening Sherman St. to 50-ft. from Frisco tracks to south line of Marblehead Lime Co. Address The Mayor.

Okla., McAlester—Pittsburg County will receive bids until Jan. 25 to lay 2 sections of concrete roads in County; 16 mi. on Jefferson Highway, and 8 mi. on Postal Highway; approximate cost \$32,000 per mile; Walter Drover, Engr., McAlester. (Lately noted.)

Okla., Muskogee—Muskogee County let contract to Salina Surfacing Co., Muskogee, at \$27,665.40 for road between Boynton and Council Hill.

Okla., Oklahoma City—City let contract to Reinhart & Donovan to pave 18th St., from Young Blvd. to Cross St., and to G. T. Harrison, to pave 28th St. from Santa Fe to Oklahoma Aves. Address The Mayor.

Okla., Ponca City—City receives bids until Dec. 31 to grade, pave and gutter 2nd St. Address The Mayor.

Okla., Tulsa—City will receive bids until Jan. 11 to pave 9 streets and 2 alleys, including Lewis, from Cherokee Heights to Hillcrest; Boston from Pine to Oklahoma; 8th from Quaker to Quincy; 17th Place from Utica to Victor; Wheeling from 12th to 14th; 20th from Lewis to Park Place; 12th Place from Xanthus to Lewis; Zunis from 12th to 13th; St. Louis from 7th to 10th; alleys in Block 5, Burgess Hill, and Block 2, Grady Heights; estimated cost \$180,000. Address The Mayor.

S. C., Charleston—Charleston County Sanitary & Drainage Comm., plans concreting 8 mi. Blue House road, from end of present concrete, to Dorchester and Berkeley County lines, on route to Summerville, and to Santee River highway; estimated cost \$250,000.

S. C., Greenville—Greenville County will receive bids until Jan. 9 for .917 mi. State Route No. 21, from end of Federal Aid Project No. 128, toward Princeton; 2872 cu. yds. top soil surfacing; 13,232 lbs. reinforcing steel; plans, etc., from E. D. Sloan, Div. Engr., Greenville, and State Highway Engr., Columbia, S. C.

S. C., Spartanburg—S. B. Ezell plans developing park, and modern residence section; also plans grading, paving and sewerage, estimated cost \$150,000; for immediate development, \$40,000. Lately noted. (See Machinery Wanted—Paving Equipment; Paving Materials.)

Tex., Angleton—Brazoria County received low bids for 2 roads as follows: grade and construct drainage structures on 7.85 mi. State Highway No. 19 from Bastrop Bayou to Oyster Bayou, from W. Joel Bryan, Freeport, at \$11,427.79 for grading, and W. A. McClen-don, Houston, at \$6,701.90 for drainage structures; grade 5.06 mi. State Highway No. 58, to S. S. Perry, Freeport, at \$10,350.69; and to M. C. Dougherty, Angleton, at \$4,959.51 for bridges and culverts on 5.06 mi.

Tex., Bonham—Fannin County let contract to Julian C. Field & Co., Denison, Tex., at \$275,000, for 7.35 mi. concrete road on State Highway No. 5.

Tex., Breckenridge—City Comm. will receive bids until Jan. 8 for 50 additional blocks of paving.

Tex., Brownsville—Cameron County defeated \$660,000 bonds; Oscar C. Dancy, County Judge. (Lately noted.)

Tex., Corpus Christi—Nueces County received low bid from Smith Bros., Dallas, Tex., at \$288,062.30, to improve and hard surface 10.1 mi. State Highway No. 12.

Tex., Corpus Christi—City contemplates improving with mud shell, Buffalo and Carrizo Sts., on bluff portion of Corpus Christi; L. B. Griffith, City Engr.

Tex., Dallas—City plans building underpass at Santa Fe tracks on Ervay St., and on Harwood St., in S. Dallas; R. A. Wylie, Street Commr.

Tex., Dallas—City plans graveling 3 mi. roadway around White Rock Lake, connecting with pavement at either end; John C. Harris, Mayor Pro Tem; E. A. Kingsley, City Engr.

Tex., Dallas—Dallas County Comms. will receive bids until Jan. 14 for 1600 lin. ft. 18-ft. concrete roadway on portion of Belt

Line Road No. 2, in Mesquite; plans, etc., from Nagle, Witt & Rollins, Dist. Engrs., Dallas.

Tex., Decatur—Wise County let contract to R. B. Sparks, 106 Gaston Bldg., Dallas, Tex., at \$53,000, to gravel surface 20.7 mi. 12-ft. wide, 8-in. road from Decatur to Montague County line.

Tex., Eagle Pass—Maverick County plans 25 mi. bituminous macadam pavement on Eagle Pass—Carrizo Springs road; estimated cost \$425,000; state and federal aid; will vote Jan. 5 on \$150,000 bonds; W. A. Bonnet, County Judge.

Tex., Fairfield—Freestone County plans building 90 mi. road including 2 roads as follows: Dallas-Houston main highway through Wortham and Teague, and Palestine-Waco highway; also plans building bridge over Trinity River, between Fairfield and Palestine; voted \$1,000,000 bonds. Address County Comms.

Tex., Fort Worth—City will receive bids soon to extend 12 blocks of pavement on Hemphill St. from Biddison to Hammond; also to pave following streets: Burnett, W. Oleander, Elmwood, Jefferson, E. Murphy Sts.; Avenues H and G and K and L; let contract to Worth Construction Co., to pave following Aves., I and J Essex, Bunting. Address The Mayor.

Tex., Houston—Harris County will receive bids until Jan. 14 to lay gravel and macadam base, and bituminous top on 1.56 mi. State Highway No. 3, between Almeda and Fort Bend County line; approximate cost \$35,000; Howe & Wise, County Engrs., 816 First National Bank Bldg.; H. L. Washburn, County Auditor. (Lately noted.)

Tex., Houston—Details under Bridges, Culverts, Viaducts.

Tex., Houston—City let contract to Uvalde Rock & Asphalt Co., San Antonio, at \$20,000, to pave Woodhead St. from Westheimer Rd. to W. Alabama Ave., making loop drive through Montrose, Cherryhurst and Hyde Park.

Tex., Houston—City plans building gravel roadway from Houston Ave. to Taylor St.; also 80-ft. steel bridge on Smith St.; contemplates bond issue; \$90,000 bond issue available for bridge; J. C. McVea, City Engr.

Tex., Karnes City—Karnes County plans additional highway improvements; estimated cost \$200,000; will vote on bonds; D. O. Klingeman, Mayor.

Tex., La Grange—Lafayette County let contracts to W. H. Davis, La Grange, to grade, construct drainage structures and gravel 2 sections of roads as follows: 1.69 mi. in La Grange, at \$14,250; 5.84 mi. State Highway No. 3-B, to new bridge to be built across Colorado River, south of La Grange, at \$96,250.

Tex., Lamesa—City will receive bids until Jan. 4 to furnish material and improve certain streets; 30,500 sq. yds. pavement; 10,000 cu. yds. earth excavation; 3630 lin. ft. combined 8-in. curb and 18-in. gutter; 3630 lin. ft. separate 18-in. gutter; 240 lin. ft. 30-in. gutter; 300 lin. ft. separate curb; 700 lin. ft. concrete headers; 3-in. vertical fiber brick, or 2½-in. vertical fiber brick, on 5-in. concrete base; plans, etc., from Elrod Engineering Co., Genl. and Const. Engrs., Dallas, Tex.; Jesse Walker, Mayor.

Tex., Lubbock—City plans expending \$1,000,000 for street paving; Hawley & Roberts, Engrs., Fort Worth and Dallas, will design and supervise project.

Tex., Marshall—City contemplates expending \$150,000 for additional street paving. Address The Mayor.

Tex., Memphis—Hall County plans 14 mi. 18-ft. concrete road and 30 mi. grading; approximate cost \$1,000,000; C. L. Hasie, Engr., Box 168, Memphis. (See Machinery Wanted—Paving Materials; Paving Equipment.)

Tex., Seguin—Guadalupe County, Road Dist. No. 1 plans asphalt topping 15.2 mi. State Highway No. 3; estimated cost \$90,000; voted \$24,000 additional bonds; Lloyd W. Taylor, County Engr.; J. B. Williams, County Judge.

Tex., Seymour—Baylor County plans building 4 hard surfaced roads, totalling over 90 mi., into Seymour; voted \$500,000 bonds; Ernest Tibbets, County Judge.

Tex., Wellington—Collingsworth County plans 7 mi. gravel road on D. C. D. Highway No. 3, through Wellington; will open bids late in Spring; approximate cost \$70,000; all contingent on bonds to be voted; R. H. Templeton, County Judge. (Lately noted.)

Va., Richmond—State Highway Dept., Richmond, plans completing 2 concrete roads as follows: 24.4 mi. from Norfolk to Virginia Beach, cost \$888,331; 27.3 mi. from Richmond to Virginia Beach, from Petersburg to point in Sussex County, cost \$930,000.

W. Va., Charleston—City defeated \$360,000 bonds. Address Mayor Wertz. (Lately noted to vote.)

Sewer Construction

Ala., Talladega—Details under Road and Street Construction.

Ark., Pine Bluff—Board of Public Affairs, W. L. Toney, Chmn., receives bids until Jan. 7 to construct approximately 960 ft. of 8-in. and 4000 ft. of 6-in. sanitary sewer with 5 automatic flush tanks and 12 manholes.

Fla., Fort Myers—Details under Water Works.

Fla., Miami—Details under Land Development.

Fla., Miami Beach (Sta. Miami, Fla.)—Details under Road and Street Construction.

Fla., West Palm Beach—Details under Land Development.

Ga., Boston—City voted \$42,000 bonds for sewerage system and school improvements. Address The Mayor.

La., Baton Rouge—Commsn. Council receives bids until Jan. 24 to construct storm drains, work will be let in three contracts, Goose Hollow, St. Phillips and Roseland Terrace combined approximate quantities are: 4250 cu. yds. Class A concrete; 384,000 lbs. reinforcing steel; 650 lin. ft. pipe; 16 manholes; J. W. Billingsley, Conslt. Engr.

La., Baton Rouge—Commsn. Council will receive bids until Feb. 5 to construct sanitary sewer system approximate quantities are 2100 lin. ft. 10-in. vitrified concrete pipe, 2500 lin. ft. of 24-in. vitrified concrete pipe; 20 lin. ft. 36-in. cast iron pipe through levee; 17 manholes; J. W. Billingsley, Conslt. Engr.

La., Baton Rouge—Details under Road and Street Construction.

La., New Orleans—Commission Council let contract to James McGowan for furnishing labor and material on percentage basis for sewerage and water works improvements in the city during 1924. (Lately noted.)

Md., Baltimore—Board of Awards opened bids for constructing storm water drain to connect with Forest Park High school; A. J. Boyle, American Bldg., was lowest bidder at \$48,910.35; G. R. Abbott, 3307 Bateman Ave., was lowest bidder for pumping unit at Back River disposal plant.

Miss., Columbus—Details under Road and Street Construction.

S. C., Arcadia—Details under Textile Mills.

S. C., Inman—Details under Water Works.

Tex., Houston—City let contract to Charles K. Horton to construct storm sewer; cost \$22,000. (Lately noted.)

Tex., Cameron—City voted \$25,000 sewerage disposal bonds. Address The Mayor. (Lately noted.)

Tex., Park Place, P. O. San Antonio—Details under Water Works.

W. Va., Charleston—City defeated \$190,000 bonds. Address Mayor Wertz. (Lately noted to vote.)

Street Railways.

La., Baton Rouge—Baton Rouge Electric Co. will, it is stated, begin construction of the Dixie extension in January. The Florida Street extension will also be built. T. P. Walker is manager.

Telephone Systems

Ala., Samson—Tri-Cities Telephone Co. will lay underground cables on Main, Ripley, Broad and Johnson streets.

Fla., Daytona—Southern Bell Telephone & Telegraph Co. will expend approximately \$35,000 on plant extensions in Halifax County during 1924.

Fla., Miami—Bell Telephone & Telegraph Co. reported to have acquired Brevard County Telephone Co.'s system, including exchanges at New Smyrna, Titusville, Cocoa, Melbourne, Vero, Ft. Pierce and Jensen.

Tex., San Marcos—San Marcos Telephone Co. will expend \$15,000 for improvements to system during 1924.

Textile Mills

Ala., Eufaula—Wm. G. Broadfoot, Roswell, Ga., acquired Marcella Cotton Mills.

Mo., St. Louis—Western Textile Products Co. increased capital from \$24,000 to \$28,620.

N. C., Balfour—Balfour Cotton Mills, Capt. Ellison A. Smythe, Pres., Greenville, S. C., let contract to Fiske-Carter Construction Co., 11 Foster St., Worcester, Mass., to construct textile mill; main building will be one story and basement 337x212 ft.; power plant and cotton warehouse, 100x106 ft.; cost about \$200,000; construction to begin in Jan.. (Lately noted.)

N. C., Central Falls—Pennsylvania Yarn Mills, Inc., capital \$350,000, incorporated by I. N. Cox, Central Falls; Carter Dalton, High Point, and others.

N. C., Elizabeth City—Ideal Hosiery Mills will probably rebuild hosiery mills; burned at loss of \$75,000.

N. C., Gastonia—Manville-Jenckes Company let contract to Aberthaw Company, 27 School St., Boston, Mass., to erect two-story structure of irregular shape, concrete, brick and timber; cost \$50,000; will be used for weave shed, containing approximately 200 looms; sub-contracts not let. (Lately noted.)

S. C., Arcadia—Arcadia Mills let contract to Henry Construction Co. of Greenville, S. C., to install complete water and sewer system for No. 1 mill; work includes laying of new water mains and sewerage lines, installation of new plumbing in every house in mill village and buildings of sewerage disposal plant; cost about \$75,000; Lockwood, Green & Co., Engrs., Spartanburg.

Water Works

Ark., Magnolia—City will probably install water and sewer system. Address The Mayor.

Fla., Fort Myers—City voted \$80,000 bonds for extension to water mains; \$75,000 bonds

for sanitary sewer system; \$70,000 for storm sewer extension of present system; \$130,000 for entire gas system; Geo. S. Iredell, City Engr. (Lately noted to vote.)

Fla., Miami—Details under Land Developments.

Fla., Miami Beach, (Sta. Miami, Fla.)—Details under Road and Street Construction.

Fla., West Palm Beach—Pinewood Springs Water Co., capital \$25,000, incorporated with George E. Andrews, Pres.; Grace A. Gruber, Sec.

Fla., West Palm Beach—Details under Land Development.

Miss., Columbus—Details under Road and Street Construction.

Miss., Meridian—City votes Jan. 18 on \$80,000 bonds for water works improvements. Address The Mayor. (Lately noted.)

N. C., Charlotte—Details under Land Developments.

N. C., Greensboro—City let contract to Ocie Dasheall Co., Portsmouth, Va., at \$72,000 for laying water main between Greensboro and city reservoir, distance of 7½ miles. (Lately noted.)

N. C., Mount Airy—City has acquired additional land for water works and electric light improvements. Address The Mayor.

S. C., Arcadia—Details under Textile Mills.

S. C., Inman—City let contract to Ryan Engineering Co. of Columbia, S. C., to construct water and sewerage system; cost \$100,000; preliminary survey was made by J. B. McCrary Co., Atlanta, Ga. (Lately noted voting bonds.)

Tex., Dalhart—City granted 20-yr. franchise to Dalhart Water Co., will improve and enlarge plant; install additional fire hydrants, etc.

Tex., Lockhart—Citizens Light and Water Co., increased capital from \$75,000 to \$150,000.

Tex., Lone Oak—City, J. E. Robb, Mayor, voted \$50,000 bonds for water works; Municipal Engineering Co., Engrs., Dallas, Tex.

Tex., Park Place, P. O. San Antonio—General Excavating Co., San Antonio, has contract for disposal and pumping plant and sewer system for Park Place.

Va., Big Stone Gap—City will vote Jan. 8 on \$38,000 bonds for extending water mains. Address The Mayor.

Va., Danville—City let contract for improvement of waterworks system; cost \$125,000.

Va., Narrows—Narrows Water Co., Inc., capital \$25,000, chartered with E. L. Caudill, Pres.; J. F. Heslip, Sec.

Woodworking Plants

Ala., Mobile—Burton Box Co., Box 284, lately noted incorporated with M. B. Burton, Pres.; M. B. Williams, Sec.; will construct addition to fruit package and box manufacturing plant; 12x50 ft.; construction by owners.

La., New Orleans—Enochs Lumber & Manufacturing Co. Jackson, Mass. has acquired plant of National Sash & Door Co., will operate.

N. C., Mebane—White Furniture Co., W. E. White, Pres., will rebuild burned plant, have not selected architect or engineer; one story, steel and brick, daylight construction for machine room; balance of building will be 75x200 ft. to 250 ft.; 2 stories with basement, probably brick basement and brick veneered; will install complete steam and power plant. (See Machinery Wanted—Steam and Power Plant; Generator Set; Tubular Boilers; Woodworking Machines; Sprinklers.)

N. C., Tunis—Tunis Heading & Stave Co., capital \$150,000, incorporated by Lyman Dickerson, of Tunis, Thomas A. Walsh, Pittsburgh, Pa., and others.

N. C., Yanceyville—N. W. Norfleet acquired tract of timber land; will develop and manufacture tobacco baskets.

Tenn., Chattanooga—Chattanooga Wagon &

Body Co., capital \$150,000, incorporated by J. H. McVeigh, C. F. Milburn and others; will manufacture wagons and bodies for trucks.

Tenn., Cleveland—Cleveland Chair Co., John Milne, Pres., will erect 80x96 ft. building; 3 stories; mill construction; construction by owners; will install sprinkler equipment. (Lately noted.)

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Ala., Mobile—Lamar Y. McLeod Post No. 3, American Legion, Dr. F. Marion Inge, Chmn. of Comm., plans to have permanent lodge building.

Fla., Fort Myers—Fort Myers Lodge, B. P. O. E., plans to erect \$50,000 building.

Mo., Springfield—American Legion, Jas. E. Ruffin, Adjt., plans to erect \$100,000 memorial building; Heckenlively & Mark, Archts., Springfield, state they have nothing to report now. (Lately noted.)

N. C., Winston-Salem—Young Men's Christian Assn., Chas. M. Norfleet, Chmn., Bldg. Comm., is having plans prepared by Sherman W. Dean, Archt., Bldg. Bureau, International Comm., Y. M. C. A., 347 Madison Ave., New York City, and Harold Macklin, Winston-Salem, for erection of 4-story and basement building, Spruce St., near 4th St.; 25x75-ft. swimming pool in basement, gymnasium, lobbies, offices, etc., on first floor, banquet hall, etc., on second floor, upper floors for dormitories; will probably be 4 to 6 weeks before plans are accepted. (Previously noted.)

Okla., Muskogee—Masonic Building Assn., W. G. Gibbons, Pres., selected Bagshaw & Howenstine and Jewell Hicks, Durant, Okla., as asso. architects for fireproof Masonic temple, to be erected at 6th and Boston Sts.; vaults, rolling partitions; cost \$150,000, including heating. (Lately noted.)

Bank and Office

Fla., Jacksonville—Florida Baptist Convention Inc., will probably let contract the third week in January for erection of store and office building on Church St.; cost about \$125,000; basement and mezzanine for Witness Press, present location, 635 N. Forsyth St., Dr. J. W. Mitchell, Editor and Mgr.; 2 stories on first floor, offices on second; reinforced concrete, brick and hollow tile; concrete, wood, marbleoid and tile floors; 5-ply tar and gravel roof, interior tile, vaults, mail chutes, ventilators, ornamental artificial stone fenestral, steel sash and trim, wire glass; foundation and columns to carry 8 stories; H. J. Klutho, Archt., 401 St. James Bldg., Jacksonville. (Previously noted.)

Tex., Dallas—Jang & Wittich, Archts., are preparing plans for \$200,000 office building for local cotton interests; structure to be fireproof, 5 to 7 stories with provisions for later erecting to 10 stories, 56x103 ft.; construction will probably start during Feb.

Churches

Ala., Boaz—Methodist Church, Rev. Jos. Owen, Pastor, plans to erect \$50,000 building.

Ga., Atlanta—Kirkwood Methodist Church, W. A. Nix, Chmn., Finance Comm., plans to remodel and enlarge building; work to start about Jan. 1.

Ky., Louisville—Beechmont M. E. Church,

South, will erect \$36,500 building, 4621 Southern Parkway Address The Pastor.

Mo., Kansas City—Linwood Boulevard M. E. Church, Rev. B. Young, Pastor, 2413 Linwood Blvd., will remodel 3-story brick apartment building for Sunday school, Linwood Blvd. and Olive St.; Franklin & Lang, Archts., 400 Reliance Bldg., Kansas City, are receiving bids.

Mo., Sedalia—First Christian Church, Rev. A. W. Kokendoffer, Pastor, 908 S. Ohio St., will possibly let contract by Jan. 10 for erection of \$20,000 Sunday school annex; 40 x 110 ft., brick construction, flat roof, concrete and hardwood floors, plaster board, vault lights, wire glass; heating about \$2000, lighting about \$1000; T. W. Bast, Archt., Sedalia. Address C. L. Hanley, Third National Bank Sedalia. (Lately noted.)

Mo., Springfield—North Side Presbyterian Church, Rev. J. W. Keicher, Pastor, plans to construct swimming pool in basement of building.

Mo., Windsor—Christian Church plans to erect building early in 1924. Address The Pastor.

Okla., Blackwell—Christian Church will erect \$100,000 building. Address The Pastor.

Okla., Tulsa—Glenwood M. E. Church, South, Rev. G. W. Martin, Pastor, will erect basement of \$25,000 building at Glenn Station, lot 11, block 2, on Sand Springs Rd.

S. C., Clemson College—Methodist Church, Rev. E. A. Holler, Presiding Elder, will probably begin erection of \$50,000 building in March; plans being drawn.

Tenn., Harriman—Methodist Episcopal Church, South, Rev. W. A. McCormack, Pastor, purchased site, Queen and Trenton St., and plans to erect \$50,000 building.

Tex., Seguin—Methodist Church plans to erect \$20,000 building; 1 story, brick and concrete; X. J. E. Gautt, Chmn. Bldg. Comm.

Va., Norfolk—Larchmont M. E. Church, Larchmont, Crescent and Monroe Place, is having drawings prepared for Colonial type Sunday school wings by Chas. J. Calrow, 535 New Monroe Bldg., Norfolk, brick walls, wood joists; 60x110 ft., 2 stories, hardwood floors, concrete foundation, slate roof, hollow and interior tile. (Lately noted.)

City and County

Fla., Miami—Convention Hall—Chamber of Commerce, E. C. Sewell, Pres., is interested in erection in Bay Front Park of convention hall with auditorium to seat not less than 6000.

Fla., Miami Beach—Fire Station, etc.—City will vote Jan. 21 on \$307,000 bonds, including \$40,000 for fire alarm equipment and erection and equipment of fire station near 23rd St. Address The Mayor.

Fla., Tallahassee — Courthouse — Leon County plans to remodel courthouse; cost

\$60,000; will vote on bonds Feb. 2; H. J. Klutho, Archt., Jacksonville, Fla. (Previously noted.)

Ga., Macon—Auditorium—City, B. J. Dasher, Chmn., Auditorium Comm., expects to have plans and specifications completed by Feb. 1 and call for bids as soon after as possible for erection of fireproof municipal auditorium to cost about \$600,000; site 215x230 ft.; Greek revival period design; circular auditorium with 150-ft. diameter and 72-ft. domed ceiling, having 2700 seats on main floor and 1300 in balcony, all seats on main floor being removable; large pipe organ and stage equipped for grand opera; 2 or 3 convention halls; auxiliary features, including warming and serving kitchen of capacity for 2000 diners; possibly public art gallery; not less than 20 exits; construction to be brick and steel with outer surface stuccoed; Egerton Swartout, Archt., 18 W. 34th St., New York City; Dennis & Dennis, Asso. Archts., Macon; Gunvald Aus Co., Engrs., 244 Madison Ave., New York. (Lately noted.)

Miss., Vicksburg—Fire Station—City, W. H. Miller, Commr., will probably begin construction in Feb. of central fire station on Walnut St. school site. (Previously noted.)

N. C., Fayetteville—Courthouse—Cumberland County Commrs., selected Harry Barton, Greensboro, N. C., and Stiles S. Dixon, Fayetteville, as associate architects for new courthouse and jail building. (Lately noted.)

N. C., Wilmington—Courthouse—New Hanover County Board of Commrs., Thos. K. Woody, Clk., extended date from Dec. 21 to Jan. 10 for receiving bids on construction, erection and completion of 4-story, steel and reinforced concrete building, 64x118 ft., on east side of present courthouse, facing on Princess St.; Herbert C. Shivers, New York City and Wilmington, and Leslie N. Boney, Wilmington, Asso. Archts.; plans and specifications from Mr. Boney. (Lately noted.)

Okla., Blackwell—Memorial Building—City defeated \$175,000 bonds for erection of American Legion Memorial Building. (Lately noted.)

Tex., Clifton—City Hall, etc.—City, P. E. Schow, Mayor, will open bids Jan. 4 for construction of brick city hall, fire station and auditorium building; 2 stories; 60x100 ft.; separate bids for plumbing and wiring; Wm. C. Meador, Archt., 910 Dan Waggoner Bldg., Fort Worth, Tex.

Dwellings

Ala., Ashville—Methodist Church plans to erect parsonage. Address The Pastor.

Fla., Miami Beach—Jacob Lakin will erect 2-story, 8-room residence; cost about \$10,000 Louis J. Laskin, Archt., Mt. Vermont, N. Y.

Ga., Cairo—D. F. Oliver will open bids Jan. 8 for erection of 1-story brick residence.

Ky., Blackey—Consolidated Fuel Co. will erect 12 miners houses; contract early in year.

Ky., Louisville—S. Hammon will erect \$20,000 residence in Woodford Place.

Ky., Louisville—Harrison Robertson will erect \$15,000 residence, Spring Drive and Cherokee Park.

Md., Baltimore—Stelmach & Engle will erect 2-story frame dwelling, 4005 Forest Park Ave.; cost about \$12,000.

Md., Baltimore—Allied Construction Co., Equitable Bldg., will erect 8 two-story brick dwellings, south side Woodland Ave., west of Wolcott Ave., 12 on N. W. cor. Woodland and Wolcott Aves., and 4 on N. W. cor. Woodland and Oakfield Ave.; about 19x32x28 ft.; total cost about \$96,000.

Md., Baltimore—Dr. Warfield T. Longcope, Johns Hopkins Univ., plans to erect \$25,000 residence and garage, south side St. Martin's Rd. near Charles St., Guilford; 2½ stories, brick, about 46x56x36 ft.

Md., Baltimore—J. Frank Supplee, Jr., 626 Equitable Bldg., will erect \$15,000 residence, north side Bedford Place, east of Charles St.; 2½ stories, about 50x25x19 ft., frame.

Mo., Kansas City—Chas. H. Burkey, 1705 Summit St., contemplates erection of \$12,000 residence, Madison Ave. and Valentine Rd.; 2 stories and basement, brick, frame or stucco; will probably mature in spring.

Mo., Kansas City—H. E. Colvin, 805 Grand Ave., is receiving new bids for erection of 2-story and basement residence, W. Prospect Place; cost \$10,000; 25x26 ft., brick and tile; C. E. Shepard, Archt., 412 Huntzinger Bldg., Kansas City.

Mo., Kansas City—Geo. G. Moore, New England National Bank, 10th and Baltimore Sts., will erect 2-story and basement residence, 810 W. 58th St.; 25x60 ft., frame and wide siding; Franklin & Lang, Archts., 400 Wellance Bldg., Kansas City, are receiving bids.

Mo., Kansas City—Mastin Simpson, Pres., Phenix Marble Co., 1901 Olive St., is having plans prepared by A. B. Fuller, 412 Grand Ave. Temple Bldg., Kansas City, for erection of 2-story and basement residence on Gladstone Blvd.; 30x38 ft., brick.

Mo., Kansas City—H. V. Snively, care Robert Garnell, Archt., 203 Bruening Bldg., is preparing plans for 1½-story and basement residence; 45x36 ft., frame and wide siding.

Mo., Mexico—Christian Church, Rev. Melville Lowe, Jr., Pastor, will erect \$10,000 parsonage.

Tex., Port Arthur—John C. Glasgow will open bids in Port Arthur Jan. 8 for erection of residence; P. G. Silber & Co., Archts., Bedell Bldg., San Antonio. (Lately noted.)

Tex., Port Arthur—Dr. A. M. McAfee will open bids in Port Arthur Jan. 8 for erection of residence; P. G. Silber & Co., Archts., Bedell Bldg., San Antonio. (Lately noted.)

Tex., San Antonio—Henry C. King will call for sub-bids for erection of group of dwellings in Mahneke Park Place upon completion of plans by Harvey P. Smith, Archt., National Bank of Commerce Bldg., San Antonio.

Tex., San Antonio—W. T. Labatt will soon have plans ready for erection of \$35,000 residence on Summit Place; rock construction, slate roof; Herbert S. Green, Archt., Alamo Bank Bldg., San Antonio.

Tex., San Antonio—Elroy D. McBride, 1314 Hays St., will erect airplane type bungalow on Olive St., near Hays St.

Va., Richmond—J. Lee Davis and W. S. Bell will erect 2, two-story brick dwellings, 3305-07 Hahover Ave.; total cost \$12,000.

Va., Richmond—Geo. Hinds will erect \$40,000 three-story brick residence, 3009-11 Park Ave.

Government and State

Mo., Kansas City—Post Office and Courthouse—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until Jan. 29 for Extension No. 3 of post office and courthouse; work to include construction of 2 wings, approximately 67 x 74 ft., fireproof, brick and cast stone facing, together with alterations in present building; drawing and specifications from Custodian at site or from office Supervising Archt.

S. C., Greenville—Post Office—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., has low bid at \$9800 from Garber & Cissel, Bethlehem, Pa., for construction of mailing vestibule, parcels

post room and lift enclosure at post office and courthouse. (Lately noted.)

Tenn., Chattanooga—Armory—City, Emil Wassman, Commr. of Public Utilities, Grounds and Buildings, has low bid at \$20,755 from Chickamauga Quarry & Construction Co., Chattanooga, for erection of armory for National Guard Cavalry Squadron. J. P. Fyffe, Col., 709 Chestnut St.; Crutchfield & Gosnell, Archts., 1241 Volunteer Bldg., Chattanooga. (Lately noted.)

Va., Langley — Barracks Building—Constructing Quartermaster, Fortress Monroe, Va., has low bid at \$74,287 from Cunningham Construction Corp., Newport News, Va., for furnishing labor and material required for one 125-men permanent barrack building at Langley Field.

Hospitals, Sanitariums, Etc.

D. C., Washington—Department of Interior, F. M. Goodwin, Asst. Sec., rejected bids for erection of 7 bungalows at St. Elizabeths Hospital; will probably call for new bids in near future. (Lately noted.)

Fla., Lakeland—Polk County will vote Dec. 31 on bill to erect hospital for indigent poor. Address County Commrs.

Tex., Hereford—Deaf Smith County, W. M. Megert, Judge, will erect hospital; \$50,000 bonds voted. (Lately noted.)

Hotels and Apartments

Ala., Greenville—Oaks Hotel Co., will erect \$21,500 hotel; wood construction, 30 rooms, metal shingles. (Previously noted.)

Ark., Helena—Merrifield & Lambert have plans by J. Frazer Smith, Memphis, for erection of 14-apartment building; English design, half timbered, Arkansas field stone, brown clinker brick and stucco; construction to start first of Jan.

Ark., Little Rock—Newcomb Hotel Co., J. A. Newcomb, Pres., is reported to contemplate erecting 10-story hotel at Seventeenth and Main Sts.; 100 ft. frontage.

Fla., Bradentown—Manavista Hotels, Inc., Geo. R. Wallace, Pres., has been incorporated with \$250,000 capital; purchased Manavista Hotel and propose erecting addition on north of present structure; will include 80 bedrooms, Spanish-Moorish design, 4 stories, hollow tile and stucco; will also remodel old Manavista; Geo. A. Fuller Co., Atlanta, are among contractors estimating. (Lately noted.)

Fla., Bradentown—American Enterprises, Inc., Jno. K. Culver, Pres., 415-6 Munsey Bldg., Baltimore, Md. and Elliott W. Darling, Vice-pres., Bradentown, has purchased Jupiter Hotel building and contemplate extensive improvements, to include taking down old style galleries that front second floor and putting new front on structure; 115x215 ft.

Fla., Jacksonville—H. J. Klutho, Archt., has completed plans for remodeling his motion picture studio into a 2-story, 4-apartment house with 6 rooms to each apartment.

Fla., Jacksonville—J. L. Wallace, Secy. of Jacksonville Real Estate Exchange, announces a committee has been appointed to look into advisability of erecting tourist hotel.

Fla., Miami—A. B. Vance, of Miami Furniture Co., has purchased Grand Hotel on N. W. First Ave. and contemplates erecting addition of 3 or 4 stories; 2-story concrete building with store rooms below; 50x100 ft.

Fla., Sanford—R. W. Griffin, of Huntington, W. Va., representing financial interests, has purchased property with frontage on Park Ave. of 250 ft. and Seminole Blvd., 270 ft., and contemplates erecting 200-room hotel; work will probably begin within 3 months.

Ky., Owensboro—L. E. Whitely, 1548 Fred-erica St., will open bids Feb. 1st, for erecting brick and concrete addition to hotel; cost \$60,000; 2 stories, 60x130 ft., hardwood and concrete floors, metal ceilings, interior tile, steam heat, electric lights, 25 bath rooms, 40-50 rooms, will install cafeteria and cold storage plant; J. W. Whitehead, Archt., Owensboro, Ky. (Lately noted.)

Md., Baltimore—A. S. Goldsborough, general secy. Merchants & Manufacturers Assn. announced that a New York syndicate plans to finance a \$3,000,000 apartment house and hotel, to be erected on Charles St. between Twenty-sixth and Thirtieth Sts.; ground floor will be occupied by lobby 30x150 ft., with dining rooms, and a ballroom to accommodate 300 couples; on level slightly lower than lobby will be a swimming pool 40x100 ft., also Turkish baths; 12 stories.

Mo., Clayton (Ind Br. St. Louis) George Daish is having plans prepared by Knehans Gieseler & Meles, Menil Bldg., St. Louis, for erection of \$50,000, 2-story, brick apartment building on Forsyth Blvd.; stone trim.

N. C., Charlotte—L. Arenson plans to erect 2-story apartment house at 606 N. Caldwell St. at cost of \$10,000; contain 20 rooms and accommodate 4 families; C. C. Hook, Archts., Charlotte.

Tex., Dallas—T. R. Burns will erect brick veneer 8-apartment building at 4604-06 Gaston St. to cost \$25,000; 4 rooms.

Tex., Dallas—Lem Hill will erect apartment house and frame garage to cost \$11,000, at 517 Madison St.

Tex., Dilley—Bert McNeil and J. Irvin White, Archts., will open bids soon, for erection of \$20,000 hotel for L. Dillard; 2 stories, 20 rooms, face brick, composition roof, plaster and sheetrock walls, hollow tile, pine floors, plumbing and electric wiring. (Previously noted.)

Tex., San Antonio—Atlee B. and Robt. M. Ayres, 626 Bedell Bldg., are preparing plans for erection of \$1,000,000 suburban tourist hotel, 8 miles north of San Antonio. Owners' name withheld for present; 6 stories, 500 guest rooms with bath, stone outer walls, reinforced concrete frame, reinforced concrete footings, 80x410 ft., Spanish tile roofing, hollow tile, metal ceilings, hardwood and concrete floors, metal doors, mail chutes, vaults, vault lights, ventilators, steel sash and trim, wire glass. (Lately noted.)

Tex., San Antonio—Eastern Syndicate, W. J. Lytle and others, are promoting erection of \$1,000,000 hotel on San Antonio River banks between Travis and Houston Sts.; 10 stories, brick facing, concrete frame, stone and marble trim, reinforced concrete footings, 50x330 ft., terrazzo and tile, hollow tile, metal ceilings, hardwood and concrete floors, plaster board, interior tile, metal doors, vaults, vault lights, ventilators, mail chutes, steel sash and trim, ornamental terra cotta, wire glass, 650 rooms; Atlee B. and Robt. M. Ayres, Archts., 626 Bedell Bldg., San Antonio. (Lately noted.)

Tex., Texarkana—Mann & Stern, Archts., Little Rock, Ark., will open bids Jan. 3 on proposed \$300,000 hotel for the Texarkana Hotel Co.

W. Va., Welsh—I. Katzen has plans by W. L. Williams, Jaeger, W. Va., for erection of 4-story brick building on McDowell St.; first floor rest rooms and others apartments; 31½x65 ft.; built-up roof and concrete oak floors, stone foundation, metal ceilings.

Miscellaneous

Ala., Tuscaloosa—County Farm—County Board of Revenue is having plans prepared by C. M. Ayres, Tuscaloosa, for erection of county farm; hollow tile stuccoed, 1 story,

100x50 ft., pine flooring, concrete foundation, composition shingle roof; will install light, sewer and water system; open bids Jan. 5. (Lately noted.)

D. C., Washington—Art Gallery—National Gallery Commission, Gari Melchers, Belmont, Va., Chmn. will start campaign through American Federation of Arts, to erect proposed building for national gallery of arts; Jas. Parmelee, of Washington and Cleveland, is chairman of committee on plans.

Fla., Miami—Clubhouse—Miami Architectural Club has purchased site at N. W. Seventh Ave., Spring Road and Spring Gardens and are preparing plans for erection of club house; triangular 80 ft. on each side; will include lobby, reception room, ladies' reception room, banquet hall, kitchen and studio.

Fla., Palm Beach—Palm Beach Yacht Club have received plans for erection of proposed \$30,000 club house and expect work to start soon. (Lately noted.)

Ga., Athens—Country Club—Jas. White, A. G. Dudley, B. F. Hardeman, Joel A. Wier, and others compose temporary committee promoting erection of country club, with golf links, lake, tennis courts and other recreational features; 188 acres have been purchased on Jefferson Road.

Ky., Henderson—Clubhouse—Country Club, B. W. Witt, Trustee, advises that nothing has been done but to purchase site, building of club house will be taken up next spring. (Lately noted.)

Md., Cumberland—Fair Grounds—Cumberland Fair Assn., Tasker G. Lowndes, Chmn. finance comm., has purchased 100 acres of land 5 miles from city on McMullen Blvd., as site for racing and agricultural fair grounds; cost about \$100,000; bids are being received for erection of exhibition buildings to include main exhibition building, poultry and machinery buildings, sections of enclosures for stock, grand stand, swimming pool, athletic field, etc.

N. C., Asheville—Asheville Country Club contemplate erecting combined country and city club to replace country club lately noted burned; will cost between \$100,000 and \$150,000; brick or stone.

N. C., Lexington—Orphanage—Junior Order of United American Mechanics, -Jas. L. Wilmet, Natl. Secy., 727 Stephen Girard Bldg., Philadelphia, Pa., has selected Lexington as site for Junior Order orphanage; will expend \$500,000 and provide for about 500 orphans at start; will eventually expend \$1,000,000 on project; will be built in town style with central building; construction to start in spring.

Tenn., Chattanooga—Ross-Hindman Co. plan to erect building at corner Eighth and Cherry Sts. and remodel Bissinger Bldg.; terra cotta front; will soon decide on type of building to be erected.

Tenn., Knoxville—Fair Grounds—East Tennessee Division Fair, Col. Claude S. Reeder, Pres., is having plans prepared for erection of concrete barn to cost \$40,000; 100x200 ft.; will remove old sheds and grade ground for site for midway and other amusement attractions.

Tex., Dallas—Fine Arts and Auditorium—Dallas Fine Arts Building Co., Jas. R. Saville, 6010 Belmont Ave., interested, incorporated and plans to soon start construction of \$750,000 fine arts and auditorium building on site between Ervay, Patterson, Federal and Bullington Sts.; 6 stories, 125x200-ft.; steel, concrete and brick, slate and composition roof, concrete, tile and cork floors, interior tile, ornamental terra cotta, mail chutes, vault lights, steam heat; auditorium on first floor to seat 5000, with

provision for 1000 emergency seats; stage to have 56-ft. proscenium span with depth of 42 ft.; dressing rooms; 130 studios; R. H. Hunt Co., Archts., Dallas. (Previously noted.)

Railway Stations, Sheds, Etc.

Ala., Boaz—N. C. & St. L. Railway Co., H. McDonald, Ch. Engr., Nashville, Tenn., plans to improve depot facilities.

N. C., Winston-Salem—Southern Railway, Henry W. Miller, Vice-pres., Washington, D. C., has plans by Alfred Fellheimer and Stewart Wagner, of New York, for erection of union passenger station to cost about \$700,000; 2 stories under ground and 65 ft. above surface of street; limestone and tapestry brick exterior; lobby and waiting rooms of marble; 106x141 ft.; will provide offices for railway and station officials. (Lately noted.)

Schools

Ala., Birmingham—County Board of Education, N. R. Baker, County Supt., is having plans prepared by D. O. Whildin, Birmingham, for erection of brick school building in west part of Jefferson County; 1-story, 10 rooms and auditorium, hollow tile, metal doors, ventilators. (Lately noted.)

Ala., Huntsville—City voted \$150,000 municipal bond issue for erection of 2 grammar schools and repairs to present school building. (Lately noted.)

Ark., Fayetteville—Fayetteville School Board, W. J. Reynolds, Secy., advises Manufacturers Record in regard to erection of Junior High School: "No proposed plans on bond issue contemplated." (Lately noted.)

Fla., Miami—Miami School District voted \$350,000 bond issue to provide for erection of junior high school at Thirty-second St. and N. W. Fifth Ave.; an addition of 1-story to Northside school building; 2 elementary schools, one at Fifth St. and N. W. Twenty-second Ave., other at Thirtieth St. and N. W. Tenth Ave.

Fla., St. Petersburg—School Board, G. M. Lynch, City Supt., contemplates \$100,000 bond issue for erection of additional school buildings.

Fla., Taft—Orange County School Board, County Supt. Johnson has purchased 13 acres of ground as proposed site of an industrial training school; training in agriculture, horticulture for boys and cookings, sewing, homekeeping for girls.

Fla., West Palm Beach—St. Ann's Catholic Church, Father Felix Clarkson, Assistant Rector, plans expenditure of \$200,000 for erection of 2 buildings as memorial to late Father Jno. Dorsey Brislan; combined convent home for Sisters and academy for older girls; parochial school; work convent-academy will begin early in Jan. Ga., Macon—Georgia Asso. of Secondary Schools and Colleges, Dr. Rufus W. Weaver, Pres. Mercer University, Pres., appointed committee to investigate question of Junior Colleges in Georgia; Committee consists of Dr. T. H. Jack, dean of graduate school of Emory University; Dean W. E. Farrar, of Mercer University, and others.

Ky., Ashland—Ashland High School Athletic Assn., contemplate campaign for \$25,000 for erection of concrete stadium to seat 6000, in Central Park.

La., New Orleans—Parish School Board opened bids Dec. 21st for erection of Capdau School building; 3 stories; 108x172 ft.; O. M. Gwin Construction Co., Canal-Commercial Bldg., New Orleans, submitted lowest bid at \$195,715; contract not awarded; E. A. Christy, Archt., New Orleans. (Lately noted.)

La., Shreveport—M. E. Dodd Foundation

of Shreveport, has been organized to receive funds for proposed Baptist Woman's College; First Baptist Church, Miss Jewel Price, Secy., advises that construction will not start for probably 2 years. (Lately noted.)

Mo., Columbia—University of Missouri, Dr. J. C. Jones, Chmn. Memorial Campaign Comm., will open bids Jan. 4 for erection of first unit of memorial tower, a part of the \$500,000 Memorial Union Building; work on tower to be completed not later than March 1, 1925. White stone, base 42 ft. square is completed; Gothic architecture; J. P. Jamieson, Archt. (Lately noted.)

Mo., St. Joseph—M. Gray Powell was awarded contract for designing school building in Spring Garden District; cost \$25,000; bonds were voted in fall; fireproof.

N. C., Buie's Creek—Buie's Creek Academy plans to erect wood gymnasium to cost about \$8000; 1-story, 60x90 ft., asphalt shingle roof, gum floors, brick foundation; J. M. Kenedy, Archt., Raleigh, N. C. (Lately noted.)

N. C., Durham—School Board, F. M. Martin, Supt., will open bids Jan. 14, for erection of junior high school; cost \$200,000; 24 rooms and auditorium, concrete, hollow tile, slag roof, interior tile, mastic and wood floors, metal doors, vaults, ornamental terra cotta, rolling partitions, ventilators; Milburn, Heisten & Co., Archt., Durham, N. C. and Washington, D. C. (Previously noted.)

N. C., Durham—Bethesda County School District, Jno. W. Carr, Supt., voted \$30,000 bond issue for erection of school building. (Lately noted.)

N. C., Greensboro—Guilford Board of Education will open bids Jan. 10 for erection of Rankin High School, at White Oak Cotton Mills, near Greensboro, and Green Township High School, near Jullin, N. C.; Linthicum & Linthicum, Archts., Durham.

N. C., Raleigh—Board of Directors of State Industrial School for Colored Boys will receive building construction and heating proposals for erection and heating of brick dormitory building in Richmond County; Linthicum & Linthicum, Archts., Durham, N. C.

N. C., Raleigh—Raleigh Township School Committee, Mr. H. F. Strygler, Supt. Schools, is having plans prepared by C. Gadsden Sayre, Anderson, S. C., and Raleigh, N. C., for erection of Caraleigh Mill School; 6 rooms and auditorium, ordinary construction, to cost \$30,000; bids opened about middle of Feb.; also Pilot Mill School to be same as Caraleigh. (Lately noted.)

N. C., Raleigh—Raleigh Township School Comm., H. F. Strygler Supt. of Schools, has plans by C. Gadsden Sayre, Anderson, S. C., and Raleigh, N. C., for erection of Hugh Morson High School to cost complete including site and equipment, \$500,000; city block between E. Morgan, E. Hargett, S. Person and S. Bloodworth Sts.; 257x226 ft., 3 stories, fireproof reinforced concrete construction, brick walls with terra cotta or limestone trimmings; floors in corridors, gymnasium and auditorium to be battleship linoleum over cement; toilet, shower rooms and stair towers, terrazzo; steel lockers recessed in corridors, split steam and steam blast heating and ventilating, electric lighting, program clock telephone and fire alarm systems, 57 class room units besides auditorium seating 1200, gymnasium, spectators' galleries for boys and girls; departments provide for industrial arts, home economics, and science in third story; plans to be ready about Mar. 1st; bids opened in middle or end of March. (Lately noted.)

Okla., Cushing—Cushing School officials have advertised for bids for erection of gym-

nasium and auditorium, to be added to new high school; auditorium to seat 1500; gymnasium will have basketball court, lockers, shower baths, and balcony to seat 600.

Okla., Guthrie—City voted \$280,000 bond issue and work will start immediately on high school building.

Okla., Muskogee—Bacone Indian College has plans by Chas. Dawson, Muskogee, for erection of dining hall and kitchen; cost \$52,000; 1 story; 31x117 ft.; George Merrill, 111 E. 40th St., New York City, of the Baptist national building comm., assisted in perfecting plans.

Okla., Norman—University of Oklahoma, B. S. Graham, Executive Secretary of University U. M. C. A., is heading student union committee to erect proposed student union building and stadium athletic plant; plans complete; cost about \$350,000; basement of student union building to contain cafeteria to serve about 1000 people, 4 bowling alleys, billiard and pool room, with 30 tables, barber shop and kitchen; first floor will have lobby, ladies' lounging room, offices of student union organization, alumni association, Y. M. C. A., and an assembly hall and dance floor; second floor will be devoted to offices for student organizations with small banquet rooms, reading rooms and assembly rooms; third floor will be devoted to a hotel operated by the student union.

Okla., Ponca City—City will call election Jan. 8 on bond issue for construction of school building in Third ward; amount not settled.

Tenn., Memphis—Southwestern, the College of the Mississippi Valley, Dr. Chas. E. Diehl, Chmn. Building Comm., Clarksville, will erect 3 dormitories, science hall, dining room and kitchen; Foster-Creighton Co., Nashville, was awarded contract for building foundations of 5 of the buildings; also for extensive grading on campus and construction of 2 roadways; for contractors submitting bids (see Dec. 13); rubble stone exterior with reinforced concrete; Henry C. Hibbs, Archt., Nashville. (Lately noted.)

Tex., Austin—University of Texas, Board of Regents, H. J. Lutchter Stark, Chmn., Galveston, is representative on committee for erection of athletic stadium to seat 50,000; to be constructed on unit plan; Herbert M. Green Co., Archts., North Texas Bldg., Dallas. (Lately noted.)

Tex., Brownwood—Howard Payne College has launched plans for erection of gymnasium.

Tex., El Paso—School Board, J. H. McBroom, Pres., will call election to vote on \$800,000 bond issue for school purposes; will provide \$170,000 for vocational training school, site and administration offices at school; relieve congested condition at Aoy and Bowie schools, \$150,000, and Alta Vista district, \$100,000; erect building at Kern Place, \$100,000 and Beall district, \$100,000; building sites, \$80,000; improve grounds, \$10,000; capital fund, \$35,000; and \$15,000 to purchase corner of block where Lamar school is located.

Tex., Houston—Mrs. Jas. L. Autrey made donation of \$50,000 for establishment of school for tubercular children.

Tex., Tyler—School Board accepted plans and specifications by DeWitt & Lemmon, Dallas and Wm. B. Ittner, St. Louis, Mo., for erection of Gary ward school to cost \$10,000 and high school building to cost about \$150,000; Bids will be opened Jan. 17 on general contract, plumbing, electric wiring and heating and ventilating; plans at

office of DeWitt & Lemmon, 508 S. W. Life Bldg., Dallas. (Lately noted.)

Tex., Vernon—Independent School District, A. F. Winston, Secy., will open bids Jan. 30, for erection of high school building after plans and specifications by Guy A. Carlander, Amarillo; cost \$100,000; 200x60 ft., auditorium, steel concrete and brick, tile roof, concrete and hardwood floors, steel sash and trim, wire glass, steam heat, electric lights. (Lately noted to open bids Dec. 1.)

Va., Lynchburg—School Board plans to begin work soon on 24-room Junior High school building.

W. Va., Huntington—Marshall College, Dr. Morris P. Shawkey, Pres., plans expenditure of \$1,000,000 for expansion of college; plans include model school, dormitory for women, residence hall, library, recitation hall and new home for president.

W. Va., Limestone—County Supt. of Schools, Court House, Moundsville, will open bids Jan. 19, for erection of Consolidated School.

Stores

Fla., Miami—Shaw Company will erect filling station, store and 2 apartments on South Miami Ave. to cost \$11,500.

Ga., Columbus—J. E. Humes will soon start remodeling the 3-story and basement Humes Bldg., recently damaged by fire at \$200,000 loss. (Lately noted damaged by fire.)

Ky., Whitesburg—J. A. Holbrook will build supply house and store building to cost \$10,000.

Md., Baltimore—Hutzler Brothers, 212 N. Howard St., will open bids Jan. 10 for erection of 5 additional stories on Saratoga St. building; brick and stone trim; will also open bids Jan. 10 for razing old building and erecting another on Howard St.; Jos. E. Sperry, Archt., Calvert Bldg., Baltimore; contractors submitting bids are: Frannie Bros. & Haigley, 19 W. Franklin St.; Consolidated Engineering Co., Calvert Bldg.; Morrow Brothers, Fidelity Bldg.; M. A. Long Co., 19 Guilford Ave.; West Construction Co., 907 American Bldg.; B. F. Bennett Building Co., 123 S. Howard St.; Geo. A. Fuller Co., American Bldg.; Cogswell-Koether Co., 406 Park Ave.; Chas. L. Stockhausen Co., National Marine Bank Bldg., Gay & Water Sts.; all Baltimore.

S. C., Greenville—B. J. Foster, Prop. of Foster Taxi Line, has purchased lot on West Coffee St., and plans to erect 3-story brick building; cost about \$26,000; 20x65 ft.; gray brick front, trimmed in white limestone with plate glass windows on first floor; first floor to house office of Foster Taxi Line and 2 upper stories 2 five-room apartments.

Tenn., Chattanooga—John Twinnam has plans by Louis E. Bull, Chattanooga, for erection of "Five Point" arcade building to cost \$200,000; will cover entire block from Poplar to Cedar Sts.; terra cotta, brick and concrete; Tennessee marble and mahogany interior; fronts and sides to be plate glass; about 50 stores; 2 stories; construction will be started early in spring. (Lately noted.)

Tenn., Memphis—Avenue Realty Co., has plans by Hanker & Cairns, Memphis, for erection of 2-story brick arcade building at n. e. cor. Union Ave. and Second St.; steel, face brick and stone, plate glass on 4 sides; will contain 10 stores on first floor and 10 stores on second floor.

Tenn., Memphis—C. B. Renegar will have plans by Mahan & Broadwell, Memphis, for rebuilding "Over the Rhine" Cafe, on Adams Ave. and Lauderdale St., to replace building destroyed by fire; steep tile roofs over half timber walls; ground floor will contain 4 stores facing on Adams Ave.; west end will provide for restaurant, with lunch counters and kitchens, opening into space for tables; private dining room to accommodate 18 people; second floor will contain 5-room owner's apartment; 22 one-room bachelor apartments; each of rooms will have connecting bath and closet space.

Tex., Crockett—Atlee B. & Robt. M. Ayres, 627-29 Bedell Bldg., San Antonio, are receiving bids for erection of 1-story automobile show room, for Smith Brothers Development Co.; 200x80 ft.; fireproof, faced with brick, hollow tile walls, reinforced concrete slabs, colored cement surfacing, tile inserts, plate glass, steel sash.

Tex., Dallas—C. H. Platter will remodel brick store building at cost of \$10,000.

Tex., Dallas—Alex Maletio will erect brick building at 4100-2-4-6 Gaston St. at cost of \$10,000.

Tex., San Antonio—Harvey P. Smith, Archt., announces that work will start after Jan. 1st on building for Zay Smith on Garden St.; 2 stores on first floor and 4 apartments above.

Va., Richmond—Tragle Drug Co., E. C. Shefer, Genl. Mgr., plans the addition of basement and second floor between Eighth and Ninth Sts.

W. Va., Gassaway—C. H. Gibson, of Glendon, representing the Kramer Wagon Co., has purchased several lots fronting on Main St. from Kathryn Waldeck, of Clarksburg, and will erect fireproof building in spring.

Theatres

Md., Mount Ranier—Crawford Spire Theater Corp., Dr. Wm. Burton Spire, Pres., has been organized with \$50,000 stock and have started construction of a motion picture theater.

Warehouses

Fla., Tampa—Lockwood, Greene & Co., W. H. Barnwell, Jr., Engrs., Healey Bldg., Atlanta, Ga., advise Manufacturers Record in regard to warehouse facilities for Interstate Investment Co. "This project has been abandoned and nothing further will be done in connection with it through this office at this time." (Lately noted.)

Fla., Tampa—Gulf & Southern Steamship Co. will open bids in few weeks for erection of 2 warehouses; one to contain 13,640 sq. ft. floor space and other 15,750 sq. ft.; steel frame, metal with concrete front; work is expected to start next month.

Ky., Louisville—Louisville Gas & Electric Co. plans construction of warehouse between Ormsby Ave. and Dumesnil St., from Seventh St. to a point west of L. & N. R. R.; cost \$250,000.

Tex., Dallas—Jas. Lyon of Lyons-Parsons Co., plans erection of \$100,000 warehouse on S. E. Cor. Collin and Carter Sts.; 6 stories; erection will start after Mar. 15.

Va., Norfolk—W. B. Causey, City Mgr., will receive bids until Jan. 16 for furnishing material and labor and constructing warehouse sheds at Municipal Terminal at Sewells Point.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Tex., Robstown—Masonic Temple Assn., Wm. Bauer, Jr., Pres., let contract at \$20,000 to W. C. Knaacker, Robstown, for erection of steel and brick temple; 3 stories, 44x75 ft., concrete and wood floors, composition roof, reinforced concrete foundation, metal ceilings, steel sash and trim, wire glass; plumbing to Robstown Hardware Co.; C. T. Fincham, Archt., both Robstown. (Lately noted.)

Va., Alexandria—Young Men's Christian Assn., C. C. Kent, Gen. Sec., let contract at \$44,000 to W. L. Morrison Construction Co., Washington, D. C., for construction of first unit of building, consisting of 42x72-ft. wing for swimming pool and completed gymnasium, 50x85-ft. basement for main building and temporary roof; 3 stories and basement; brick walls, wood joists, steel columns and girders, oak, maple and concrete floors, metal ceilings, slag and felt roof, vapor system of heat, city lights; C. L. Harding, Archt., 729 15th St., Washington, D. C. (Lately noted.)

Bank and Office

Ga., Savannah—Realty Investment Co., W. H. Stillwell, Pres., P. O. Box 554, let general contract to Artley Co., Savannah, for erection of 10-story Realty Bldg., Drayton St. near Bryan St.; classic renaissance type, 60x90 ft., reinforced concrete, with stone base and face brick above, concrete, hardwood and tile floors, hollow and interior tile, metal ceilings, plaster board, mail chutes, steel sash and trim, wire glass, vapor-vacuum heat, 2 elevators; cost, including mechanical equipment, about \$500,000; 3 banking suites on ground floor, offices above; Henrik Wallin, Archt., Savannah; G. Lloyd Preacher & Co., Asso. Archts., Atlanta; contract for razing old Merchants Nat. Bank Bldg. let to Chapman & Clark, Savannah. (Previously noted.)

Ky., Louisville—Federal Reserve Bank of St. Louis let contract to National Concrete Construction Co., Louisville, for erection of \$140,000 addition to present branch bank building, 5th and Market Sts.; 52½x105 ft.; D. X. Murphy & Bro., Archts., Louisville. (Lately noted.)

Okla., Norman—Security National Bank let contract at \$65,000 to Gross Construction Co., Norman, for erection of concrete bank building; 2 stories, 86x50 ft., concrete and marble floors, concrete foundation, composition roof, interior tile, vault lights, ventilators, steel sash and trim, wire glass; heating to Gross Construction Co. and McCoy Heating Co.; will probably award electrical work to E. W. Cralle & Co., all Norman; Wm. Schmitt, Archt., Oklahoma City, Okla. (Lately noted.)

W. Va., Huntington—Coal Exchange Building Co., Inc., Abe Solof, Sec., will have plans and specifications complete within few days for erection of Gothic type 14-story fireproof bank and office building, 4th Ave. and 11th St., and hopes to send out for bids between Jan. 15 and 20; building to cost about \$1,000,000; reinforced concrete, steel, terra cotta, stone and brick, 4 elevators; 325 offices; Menor & Handloser, Archts., Huntington. (Lately noted.)

Churches

Ark., Warren—Methodist Church let contracts for remodeling present building and erection of 2-story, 50x90-ft. Sunday school structure; cost \$30,000; Carl Hollis, Chmn., Bldg. Comm.

Mo., Houston—Baptist Church, W. H. Mor-

gan, Chmn., Finance Comm., has basement finished for new brick and concrete building; 52x55 ft., oak and concrete floors, concrete foundation, shingle or paper roof; 1 story; cost \$15,000; Geo. F. Reed, Archt., Springfield, Mo.; H. B. Fleenor, Contr., Houston. (Lately noted.)

N. C., Raleigh—First Presbyterian Church, R. W. Dunn, Chmn., Bldg. Comm., let contract to Harrison Construction Co., Petersburg, Va., for erection of \$90,000 Sunday school building; 2 stories and basement; brick, stone and concrete, concrete and pine boars; Herbert L. Cain, Archt., 12 N. 9th St., Richmond, Va. (Previously noted.)

City and County

Fla., Miami—Grandstand—City let contract to O'Neill-Orr Construction Co., Miami, for erection of \$25,000 concrete grandstand at Miami Sports Stadium, N. W. 3rd St. and 16th Ave.

Md., Baltimore—Police Sub-Stations—City, Mayor Howard W. Jackson, Pres., Board of Awards, let contract for following police substations: Liberty Hgts. and Oxford Aves., Carl Schmidt, 1718 Light St., at \$13,082; Harford and Rockwood Aves., Henry Maas & Sons, Munsey Bldg., at \$9600; Frederick and North Bend Rds., Decou & Davis, 6 E. Mulberry St.; O. Eugene Adams, Archt., Calvert Bldg., all Baltimore. (Lately noted.)

Tex., Brownwood—Memorial Auditorium—City, F. W. Greber, Chmn., Auditorium Bldg. Comm., let contract at \$76,881 to Christy-Dolph Construction Co., Dallas, Tex., for erection of soldiers and sailors memorial auditorium on Baker St.; heating and plumbing to Fort Worth Heating & Plumbing Co.; electrical work to Wortham Electric Co., both Fort Worth, Tex.; brick, steel and concrete construction, 122x144 ft. 3 stories, concrete and hardwood floors, Barrett roof; metal doors, ventilators, ornamental terra cotta, steel sash and trim, wire glass; Sanguinet, Staats & Hedrick, Archts., Fort Worth. (Lately noted.)

Dwellings

Fla., Bradentown—E. C. Martin let contract to Macon & Fonda, Bradentown, for erection of \$25,000 residence, Sarasota Ave. near Manatee Ave.; 2 stories, hollow tile and stucco, ornamental stone, red Spanish tile roof; ground broken; plans by Contrs.

Fla., Miami Beach—Miami Ocean View Co. will erect \$20,000 residence, 1409 Euclid Ave.; 2 stories, 7 rooms; 1-car garage and servants quarters in separate building; Robt. A. Taylor, Archt.; Hunt Bros., Contractors, both Miami, Fla.

La., New Orleans—Ben Stern will erect \$25,000 residence on Newcomb Blvd. by day labor; Weiss & Dreyfous, Inc., Archts., Maison Blanche Bldg., New Orleans, are receiving sub-bids on mechanical equipment, brick work, lumber, cement, plastering, roofing, tile, painting, glazing, sand and gravel, sheet metal work, etc.

La., Shreveport—J. E. Smitherman has begun excavation for \$225,000 residence on Fairfield Ave., for which contract was let Nov. 19 to W. H. Werner, Shreveport; 2 stories, about 100x100 ft., concrete foundation, slate roof; flooring not decided; heating and plumbing to Fitzgerald Plumbing & Heating Co.; Edw. F. Neild, Archt., both Shreveport. (Lately noted.)

Md., Baltimore—C. O. Boothroyd let contract to Allied Construction Co., Equitable Bldg., Baltimore, for erection of \$12,000 residence and garage, south side Oakley Ave.,

east of Tanier Ave.; 2 stories, frame, 30x44 ft. and 18x20 ft.; asbestos roof, furnace heat; F. E. Beall, Archt., 306 St. Paul St., Baltimore. (Lately noted.)

Md., Baltimore—H. A. Needle, 2217 Mondawmin Ave., will erect 9 two-story brick dwellings, S. W. side Denison St., S. E. of Lafayette Ave.; slag roofs; total cost \$16,000; A. C. Radziszewski, Archt., 735 S. Linwood Ave., Baltimore; owner builds.

Mo., Clayton (Ind. Branch St. Louis)—Mrs. S. B. Lambert will erect \$10,000 residence, Clayton Terrace, Moorlands Park; brick and frame, 38x36 ft.; B. J. Charleville, Contr., 810 Chestnut St., St. Louis.

Mo., St. Louis—Stoeckel & Fischer, 4382 Penrose St., will erect \$10,000 brick tenement house, 3437 Osage St.; 2 stories, 34x61 ft., gravel roof, furnace heat; owners build.

Mo., St. Louis—Robert Darr, 1317 Kentucky St., will erect 3 two-story brick tenements, 3821-25-27 Oregon St.; total cost \$21,900; each 23x43 ft., ruberoid shingle roofs, hot air heat; Edw'n Lick, Contr., 4562 Fair St., St. Louis.

Mo., St. Louis—C. Neustadt, First Nat. Bank Bldg., will erect 4 two-story brick tenements, 4955-85-95 Quincy St.; 34x46 ft., composition roofs, furnace heat; total cost \$38,000; Alfred De Benedetty, Contr., St. Louis County.

Tenn., Knoxville—Victor L. Nicholson will erect \$18,000 residence, Melrose and Francis Sts.; construction to start about Jan. 1 by owner.

Tenn., Memphis—S. Malkin will erect 7 frame dwellings on Jackson Ave.; 5 and 6 rooms; total cost \$19,000; owner builds.

W. Va., Charleston—Co-operative Home Builders, 403 Capitol City Bank Bldg., has completed brick foundations for 2 frame dwellings in Edgewood; 2 stories, composition shingle roofs; cost \$10,000 each; Knapp & Haviland, Archts.; D. O. Wright, Contr., 1816 Piedmont Rd.; Columbus Heating & Ventilating Co., heating; Schofield-Harvey Electric Co., electrical work; Morgan Plumbing & Heating Co., plumbing, all Charleston.

W. Va., Wheeling—Mrs. H. Richard Markell will erect \$17,000 frame residence, 24 Hamilton Ave.; Ralston Byrum, Contr., Wheeling.

Government and State

W. Va., Charleston—Capitol—Capitol Building Commsn., Gov. E. F. Morgan, Ex-Officio Chmn., has awarded contract to Geo. A. Fuller Co., Fuller Bldg., New York, at \$1,030,000, to erect office building as first unit of State Capitol; mechanical equipment includes heating and ventilating, plumbing and gas fitting and electrical work; building to be 290x59 ft., with 71x12-ft. wing; stone and steel construction; also let sub-contracts as follows: Jas. McCrea & Son, 19 N. Carrollton Ave., Baltimore, Md., heating and ventilating at \$39,634, and plumbing at \$27,822; Eastern Electrical Construction Co., Philadelphia, Pa., electrical work at \$20,509; Otis Elevator Co., 26th St. and 11th Ave., New York City, elevators at \$18,235; Cass Gilbert, Archt., 244 Madison Ave., New York City. (Lately noted.)

Hospitals, Sanitariums, Etc.

Tex., Shiner—Dr. Lloyd Wagner let contract at \$26,000 to Newman Bros., Kenedy, Tex., for erection of 2-story hospital; brick, lath and plaster, 44x80 ft., pine and concrete floors, concrete foundation, asbestos shingle roof, ventilators, metal ceilings; Louis Dasher, Archt.; Shiner; work started; hot air heating, electrical work and plumbing not let. (Lately noted.)

Tex., Shreveport—Dr. A. A. Herold and L. Abramson have begun excavation for 4-story hospital on Louisiana Ave. for which contract was let Nov. 19 to W. H. Werner, Shreveport, at \$118,489; fireproof, 80x100 ft., rubber tile floors, concrete foundation, Barrett roof; Henry E. Schwarz, Archt., 805 Ardis Bldg., Shreveport. (Noted Dec. 6.)

Hotels and Apartments

Fla., Tampa—Adair & Senter, Atlanta, Ga., announce that construction of Tampa Terraces Hotel, for Adair Realty & Mortgage Co. of Atlanta, will start shortly after Jan. 1st; 12 stories.

Ga., Atlanta—Henry Grady Hotel Co., C. R. Cannon, awarded contract to Gude & Co., 64 Poplar St., Atlanta, to erect \$1,250,000 hotel building on Cain & Peachtree Sts.; Morrow & Davis have contract for grading lot; J. M. High Co., have contract for furnishings, curtains, rugs, and equipment of 5 dining rooms; both Atlanta; 143x115 ft., 12 stories, basement and sub-basement, fireproof, Barrett roof, about 600 rooms, tile floors and wainscoting, reinforced concrete, brick and terra cotta, 3 elevators; G. Lloyd Preacher & Co., Archts. and Engrs., Healey Bldg., Atlanta. (Lately noted.)

Ga., Augusta—J. B. White & Co., awarded contract to C. H. Van Ormer, Augusta, at \$250,000, to erect store building at 938-48 Broad St.; 3 stories and basement, 76 x 271 ft., composition roof, maple and concrete floors, steel frame, concrete foundation, hollow tile, metal ceilings, interior tile, metal doors, ventilators, ornamental terra cotta, rolling partitions, steel sash and trim, wire glass, front of polychrome terra cotta and granite, Italian Renaissance style, plate glass windows in copper frames, sprinkler system, fire escapes; E. J. Erbeling, heating and plumbing; J. A. Young, electric lights; Willis Irvin, Archt., all Augusta. (Lately noted.)

Mo., Clayton (Ind. Branch St. Louis)—C. C. Hardcastle will erect single brick flat, block "G," Bemiston cost \$10,000, 32x45 ft.; owner builds

Miscellaneous

Fla., Tampa—Fair buildings—South Florida Fair Assn., P. T. Strieder, Gen. Mgr., awarded contract to Logan Bros. Construction Co., at \$8937.90, to erect Bize Hall and extension of 77 ft. on Brorein Hall at fair grounds; frame structure, 50x200 ft., concrete floors; addition of brick. (Lately noted.)

Mo., St. Louis—Ed. J. Mack, Jr., 4011 Lafayette St., let contract to J. Hill Construction Co., 915 Olive St., to erect 1-story stable at 1104 Macklind St., to cost \$10,000; 34x212 ft.; rubberoid roof, furnace heat.

S. C., Charleston—Florence Crittenton Home, Miss Claudia Tharian, awarded contract to L. D. Long Construction Co., Charleston, to erect 2-story brick building; W. K. Prause, Charleston, plumbing and heating; cost about \$50,000; Colonial design; 122x88 ft.; J. D. Newcomer, Archt., 32 Broad St., Charleston. (Previously noted under schools.)

Tex., Comfort—Home—Moeller & Wellbacher, San Antonio, has contract for remodeling the Herman Sons' Home for the Aged, for \$6810; Adolph Collman, plumbing at \$1980; Braden-Hudson Co., wiring at \$329; all San Antonio.

Schools

La., Lafayette—Sisters of Mt. Carmel awarded contract to Knapp & East, Lake Charles, at \$39,400, to erect 2-story brick school building; concrete reinforced foundation; concrete and wood flooring, composition roof; New Iberia Plumbing and Contr. Co., New Iberia, plumbing, heating and power; W. T. Nolan, Archt., New Orleans. (Lately noted.)

N. C., Elizabeth City—State Normal College for Negroes awarded contracts to W. D. Lewis and W. T. Culpepper trading as W. D. Lewis & Co., at \$84,079, to erect 4 buildings to include, 36-room dormitory for boys to cost \$51,177; laundry building to cost \$9820; industrial building to cost \$16,966, and 6-room teachers' cottage to cost \$6116; total cost including equipment about \$120,000.

Okla., Alma—School District awarded contract to E. C. Lincicome, Healdton, at \$16,500, to erect brick school building; 1 story, 10x160½ ft., concrete foundation under way, composition tar and gravel roof, metal ceilings, rolling partitions, edge grain, pine flooring. Contractor is architect. (Lately noted.)

S. C., Greenville—City Board of Education, Dr. J. L. Mann, Supt., awarded contract to W. M. Welsh Construction Co.; Poe Heating Co., heating; Huntington-Guerry Electrical Supply Co., electric wiring; all Greenville; red brick trimmed in white; cost \$76,000; plans by J. E. Sirrine & Co., Engrs. Greenville. (Lately noted.)

Tex., Dallas—Board of Education awarded contract to A. J. Rife, Dallas, at \$383,602, to erect school building; 150x248 ft., 3 stories, composition roof, concrete foundation, wall bearing, concrete inside, edge grain pine and concrete floors, hollow tile, interior tile, metal doors, ornamental terra cotta, steel sash and trim; DeWitt & Lemmon, Archts., Dallas.

Tex., Smithville—Board of Education, C. C. Black, Secy., awarded contract to Jas. T. Taylor Contracting Co., Fort Worth, at \$55,995, to erect high school; Wright Bros., San Antonio, plumbing and electrical wiring; 2 stories, concrete frame, brick walls, fireproof, wood floors, hot air heat; H. F. Kuehne, Archt., 824 Littlefield Bldg., Austin. (Previously noted.)

W. Va., East Bank—Board of Education of Cabin Creek District, Edward Smith, Secy., awarded contract to Banks & Brauneck, Charleston, to erect brick and steel gymnasium building; concrete flooring, composition roof, 62.8x94.4 ft., concrete foundation, hollow tile, steel sash and trim; Geo. Hubbs, State Archt., Capitol Bldg., Charleston. (Lately noted.)

Stores

Ga., Savannah—Crane Co., H. E. Walters, Mgr., awarded contract to Farquhar McRae, Savannah, to remodel and practically rebuild structure at 14 W. Broad St.; 90x60 ft.; 2 stories and basement; show rooms and plate glass windows; stone finished walls and cut air stone front; Henrik Wallin and Arthur Comer, Archts., Savannah.

La., Shreveport—Katzenstein, Weiner & Loeb awarded contract to W. H. Werner, Shreveport, to erect department store building on Texas Ave. at a cost of \$312,600, Jones, Roessle, Olshner & Weiner, Archts., Ardis Bldg., Shreveport; to be operated by Feibleman's Inc., Shreveport. Fitzgerald Plumbing & Heating Co., Shreveport, ventila-

ting and heating. (Lately noted to be operated by Feibleman & Co., of New Orleans.)

Mo., St. Louis—W. R. Monning, 5011 S. Kings Highway, will erect 2-story brick store and residence, 5005-07 S. Kings Highway; 39 x 40 ft., gravel roof, hot water heat; J. B. Monning, Archt., 5011 S. Kings Highway; owner builds.

Tenn., Memphis—Otis Elevator Co. was awarded contract for furnishing and installing 7 passenger elevators, 2 freight elevators and 1 ash hoist in building of B. Lowerstein Bros., Inc.; Hanker & Cairns, Memphis and Emile Well, New Orleans, Asso. Archts. (Lately noted.)

Tenn., Nashville—Hooper Grocery Co. awarded contract to E. G. Holladay Construction Co., Nashville, to erect \$50,000 building at 130 Second Ave.; brick, 3 stories, 50x210 ft., concrete foundation, wood joists and rft pine floors, composition roof; no bids desired; H. B. Jordan, plumbing; Nashville Machine Co., freight elevator; Marr & Holman, Archts., all Nashville. (Lately noted.)

Tex., Lubbock—J. B. Maxey has contract to erect three 25-ft. brick buildings facing Broadway.

Tex., San Antonio—H. Lee Ransom awarded contract to Shane & Dickey, San Antonio, to erect store on corner Broadway and Ninth St., to be occupied by Lee Tire Co.; brick and tile, plate glass front, cost \$10,000; Geo. Willis, Archt., San Antonio.

Tex., Wichita Falls—Perkins & Cullum, Box 1020, awarded contract to R. C. Cate, at \$15,000, to erect 1-story brick store building at 820 Lamar St.; 50x150 ft.; concrete flooring, composition roof, concrete foundation, metal ceilings; Voelker & Dixon, Archts., Wichita Falls. (Lately noted.)

W. Va., Wheeling—Alex Durst & Sons awarded contract to Ogdan & Bauer, Wheeling, to erect combination store and residence at 1206-08 Chapline St.; cost \$45,000.

Theatres

Ky., Harlan—Harlan Fuel Co., E. Guthrie, Pres., awarded contract to A. J. Stern & Son, Knoxville, for erection of \$50,000 commissary and theater building to be located in Yancy, about 7 miles from Harlan; 50x125 ft.; will contain pool room, barber shop and offices; R. F. Graf & Sons, Archts., Knoxville.

Warehouses

Fla., Tampa—W. Lesley Brown, City Mgr., awarded contract to McGucken-McGucken & Edwards, Tampa, at \$80,000, to erect steel municipal warehouse; steel frame with corrugated iron sides, built-up roof, 1-story, concrete flooring, concrete on wood piling foundation, 75 x 660 ft.; work to be completed in 150 days; A. W. D. Hall, Engr., Tampa. (Lately noted.)

Tenn., Memphis—Sam Malkin, has started work on construction of warehouse and office for Lily Brokerage Co., at 468 Union Ave.; cost about \$25,000; brick and stone exterior, steel truss roof; E. L. Harrison, Archt., Memphis.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Asphalt.—See Paving Materials.

Asphalt Paving Plant.—See Paving Equipment.

Binding Machines.—See Cap Making Machinery.

Boilers (Tubular).—White Furniture Co., W. E. White, Pres., Mebane, N. C.—In market for two 200 h.p. return tubular boilers for woodworking plant.

Brick.—See Paving Materials.

Brick.—See Building Materials.

Bridge.—City of Jackson, Miss. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—Palm Beach County, West Palm Beach, Fla. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge Operating Machinery and Trim.—Board of Commrs., J. H. Walsh, Gen. Mgr., New Orleans, La.—Bids until Jan. 17, for operating machinery and trim for Canal St. Ferry Bridge.

Building Material.—Chas. L. Stockhausen Co., National Marine Bank Bldg., Gay and Water Sts., Baltimore, Md., are estimating on construction of buildings for Hutzler Brothers Co., Baltimore, and desire sub-bids on all lines until Jan. 9; also desire sub-bids on all lines until Jan. 2 for Mercantile Trust & Deposit Co. building, and until Jan 8 for Jackson Place School, Jackson Place and Fairmount Ave., both Baltimore.

Building Materials.—Elkhorn Motor Co., Keystone, W. Va.—Prices on building materials, including brick, steel and concrete.

Cap Making Machinery.—Bennett's Hat Factory, 123 Broad St., Jacksonville, Fla.—Binding machines, whipping machines and machines for making caps; all electrically equipped.

Cement.—See Paving Materials.

Clamshell Digger.—See Portable Leading Machine, etc.

Concrete.—See Building Materials.

Concrete Block Forms.—J. H. Anderson, Route 4, Box 5, Camden, S. C.—In market for forms for making concrete blocks and concrete novelties.

Concrete Paving Equipment.—See Paving Equipment.

Concrete Mixer.—See Paving Equipment.

Concrete Paving Reinforcing.—See Paving Equipment.

Crushing Machines.—See Hoisting Machines.

Drags.—See Paving Equipment.

Drainage Structures.—State Road Dept., Tallahassee, Fla. Details under Construction News—Bridges, Culverts, Viaducts.

Electrical Fixtures.—Elkhorn Motor Co., Keystone, W. Va.—Prices on electrical fixtures.

Electric Welding Machines.—Ever-Brite Stove Co., 2852 Grant St., Kansas City, Mo.—In market for electric welding machine.

Engines.—See Generator Set.

Excavating and Conveying Machinery.—See Paving Equipment.

Factory Building.—White Furniture Co., Mebane, N. C.—Names and addresses of builders of one story daylight building with concrete floors for machine rooms.

Furniture.—Honorable County Court of Pettis County, Sedalia, Mo.—See Heating, Plumbing, Ventilating, Wiring and Furniture.

Generator, etc.—Town of Greenville, N. C.—J. O. Duval, Clk., opens bids Jan. 24 for one 1250 k.w. steam turbo generator and switchboard panel for municipal power plant; Ed. E. Williams, Engr., Greenville.

Generator Set.—White Furniture Co., W. E. White, Pres., Mebane, N. C.—In market for 300 k.w. generator direct connected with engine for woodworking plant.

Graders.—See Paving Equipment.

Granite Block.—See Paving Materials.

Gravel.—Louisiana Highway Comm., Raymond Bldg., Baton Rouge, La.—Bids until Jan. 22 for washed or sand-clay gravel to surface 3 roads in Evangeline Parish; plans, etc., on file; J. M. Fourmy, State Highway Engr.

Heating, Plumbing, Ventilating, Wiring and Furniture.—Honorable County Court of Pettis County, Sedalia, Mo.—Bids until Jan. 15 for furnishing all labor and material for following contracts: Heating, plumbing and ventilating in 1 contract, wiring and fixtures in 1 contract and furniture and furnishings in 1 contract (separate figures on wood and steel furniture); drawings on file with Clk. of County Court, Sedalia, at office W. E. Hulse & Co., Archts., Hutchinson, Kan., Western Contractor, Kansas City, Mo., American Contractor, Chicago, Ill., F. W. Dodge Co., St. Louis, Mo., and Builders Industrial Bureau, St. Joseph, Mo.

Heating System.—Elkhorn Motor Co., Keystone, W. Va.—Prices on heating system.

Hoisting Machines.—H. Edward Smith, Mgr., Box 522, Fayetteville, Ark.—Prices on hoisting and crushing machines.

Linoleum.—George Beaudett, El Paso, Tex.—240 sq. ft. green linoleum.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, Gen. Purchasing Officer, Washington, D. C.—Bids until Jan. 11 for furnishing switchboards; pinions; air compressor; composition flooring; insulated cables; lamp cord; steel conduits; electric motor; transformers; pneumatic drills; paving breakers and clay scoops; fans; storage batteries, etc.; blank forms and information (Circular 1581) on application to offices of Panama Canal; Asst. Pur. Agts. at Fort Mason, San Francisco, Cal.

Orange Peel Bucket.—N. C. Hughes, Jr., Contr. Engr., Lancaster, S. C.—Second hand ½-yd. orange peel bucket only; have accessories; state cash price or rent on monthly basis for 6 months.

Paving, etc.—City of Lamesa, Tex. Details under Construction News—Road and Street Construction.

Paving, etc.—City of Talladega, Ala. Details under Construction News—Road and Street Construction.

Paving, etc.—City of Eufaula, Ala. Details under Construction News—Road and Street Construction.

Paving.—Fulton County, Atlanta, Ga. Details under Construction News—Road and Street Construction.

Paving.—City of Baton Rouge, La. Details under Construction News—Road and Street Construction.

Paving.—City of Richmond Heights, Mo. Details under Construction News—Road and Street Construction.

Paving.—Ralph Milroy, City Clk., Manchester, Iowa—Bids until Jan. 3 for 48 blocks of paving, including 52,132 yds. paving, 500 cu. yds. excess excavation, and 700 ft. combined curb and gutter; plans, etc., from

Howard R. Green Co., Engrs., Bever Bldg., Cedar Rapids, Iowa.

Paving Equipment.—C. L. Hasie, Engr., Box 168, Memphis, Tex.—Data and prices on asphalt paving plant, concrete paving reinforcing, for 30 mi. grading and 14 mi. concrete road.

Paving Equipment.—E. B. Ezell, Ezell Park, Spartanburg, S. C.—Data and prices on concrete paving mixer, concrete paving equipment, excavating and conveying machinery, wagon loaders, rollers, graders, scrapers, drags, road forms, for grading and paving.

Paving Materials.—C. L. Hasie, Engr., Box 168, Memphis, Tex.—Data and prices on asphalt, brick, cement, granite block, sand, stone, road binders, for 30 mi. grading and 14 mi. concrete road.

Paving Materials.—E. B. Ezell, Ezell Park, Spartanburg, S. C.—Data and prices on asphalt, cement, sand, slag, stone, for grading and paving.

Pier Warehouse.—City of Norfolk, Va. Details under Construction News—Miscellaneous Construction.

Pimentos Canning Machinery.—Fair & Martin, Inc., Atlanta, Ga.—In market for machinery of all kinds to equip pimentos canning plant.

Plumbing.—Elkhorn Motor Co., Keystone, W. Va.—Prices on plumbing.

Plumbing.—Honorable County Court of Pettis County, Sedalia, Mo.—See Heating, Plumbing, Ventilating, Wiring and Furniture.

Portable Loading Machine, etc.—Box 102, Acme, N. C.—One loading machine, electrically driven, similar to Jeffreys's type G loader and one small clamshell digger; state condition and price.

Press.—Ever-Brite Stove Co., 2852 Grand St., Kansas City, Mo.—In market for belt driven bench punch press.

Railroad Equipment.—Leaksville Brick & Coal Co., Leaksville, N. C.—In market for 8000 ft. second-hand small rail for use in brickyard.

Rectifier.—Blinkley Machine & Motor Co., Branson, Mo.—In market for a 10 battery rectifier for 110 or 220 volt 25 cycle.

Road.—Greenville County, Greenville, S. C. Details under Construction News—Road and Street Construction.

Road.—Louisiana Highway Comm., Baton Rouge, La., will build 3 roads. Details under Construction News—Road and Street Construction.

Road.—State Road Dept., Tallahassee, Fla. Details under Construction News—Road and Street Construction.

Road.—Dallas County, Tex. Details under Construction News—Road and Street Construction.

Road.—Harris County, Houston, Tex. Details under Construction News—Road and Street Construction.

Road.—Hinds County, Jackson, Miss. Details under Construction News—Road and Street Construction.

Road.—Montgomery County, Montgomery, Ala. Details under Construction News—Road and Street Construction.

Road.—Pittsburg County, McAlester, Okla., will build 2 roads. Details under Construction News—Road and Street Construction.

Road.—State Road Dept., Tallahassee,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned

Fla., will build 3 roads. Details under Construction News—Road and Street Construction.

Road Binders.—See Paving Materials.

Road Forms.—See Paving Equipment.

Road Rollers.—See Paving Equipment.

Roller Chains.—See Sprockets and Castings.

Sand.—See Paving Materials.

Scrapers.—See Paving Equipment.

Sewers.—City of Baton Rouge, La. Details under Construction News—Sewer Construction.

Sewer.—City of Baton Rouge, La. Details under Construction News—Road and Street Construction.

Sewer.—City of Talladega, Ala. Details under Construction News—Road and Street Construction.

Sewers.—City of Pine Bluff, Ark. Details under Construction News—Sewer Construction.

Shears (Belt Driven).—Ever-Brite Stove Co., 2852 Grand St., Kansas City, Mo.—In market for belt driven shears.

Slag.—See Paving Materials.

Sprinklers.—White Furniture Co., W. E. White, Pres., Mebane, N. C.—In market for sprinkler system.

Sprockets and Gears.—J. N. Allensnorth, 303 Garland St., Memphis, Tenn.—Names and addresses of manufacturers of gears, sprockets, roller chains and press steel plants, also steel foundries; want prices on 42 teeth sprockets, 12 teeth sprockets; 1 1/4 pitch chain, 1 1/4 pitch roller chain; 17/16 bore, 1 15/16 press bore; 72 teeth 4 pitch, cast iron gear 2 in. face; 14 teeth, 4 pitch steel pinion 1 7/16 bore; steel castings.

Steam and Power Plant.—White Furniture Co., W. E. White, Pres., Mebane, N. C.—In market for complete steam and power plant for factory building.

Steel.—See Building Materials.

Steel (Structural).—Board of Comms., J. H. Walsh, Gen. Mgr., New Orleans, La.—Bids until Jan. 17 for 213 tons structural steel for Canal St. Ferry Bridge.

Steel Castings.—See Sprockets and Gears.

Stone.—See Paving Materials.

Strap Iron.—W. E. Morgan, Dayton, Tenn.—To purchase 20 to 30 gauge common black sheets in strips 1 1/4 in. wide, coiled.

Textile Machinery.—R. G. Wallace, Carthage, N. C.—Data and prices on machinery to manufacture shirts, pants and nainsook underwear.

Trim.—See Bridge Operating Machinery and Trim.

Turbo-Generator.—Water & Light Commission, Greenville, S. C., receives bids until Jan. 24 for one 1250 k.w. steam turbo-generator and switchboard panel for municipal power plant; specifications, etc., from Ed. E. Williams, Engr., Greenville.

Underpinning Foundations.—Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids until Jan. 9 for underpinning 38 concrete pile footings of Navy Dept. Bldg., 18th and B Sts., N. W., Washington; drawings and specifications No. 4934 from Bureau Yards and Docks, L. E. Gregory, Chief.

Ventilating.—Honorable Court of Pettis County, Sedalia, Mo.—See Heating, Plumbing, Ventilating, Wiring and Furniture.

Wagon Loaders.—See Paving Equipment.

Whipping Machines.—See Cap Making Machinery.

Wire (Common Black).—W. E. Morgan, Dayton, Tenn.—To purchase 14 gauge common black wire.

Wiring.—Honorable County Court of Pettis County, Sedalia, Mo.—See Heating, Plumbing, Ventilating, Wiring and Furniture.

Woodworking Equipment.—Curiosity Shop, 1903 Main St., Kansas City, Mo.—In market for wood turning lathe and joiner.

Woodworking Machinery.—J. William Firor, County Agent, Co-operative Extension Work in Agriculture and Home Economics of the State of Georgia, 170 King Ave., Athens, Ga.—Information as to possibility of using farm labor during winter months in manufacturing products from hard wood in small but efficient manner; 15 tenant families available; will probably make handles for different articles and possibly shovels, brushes, etc.; would like names and addresses of manufacturers of machinery for such products and also names of firms using them.

Woodworking Machines.—White Furniture Co., W. E. White, Pres., Mebane, N. C.—In market for latest improved woodworking machine.

Financial News

New Financial Corporations

Fla., Kissimmee—Bank of Kissimmee organized with L. H. Gedge, Pres.; M. I. Stout, 1st V-P.; B. C. Miller, 2nd V. P.; Stratton L. Story, Cash.

Fla., Orlando—American National Reserve Insurance Co., capital \$500,000, incorporated with F. L. Windham, Pres.; A. M. Starbird, V.-P.; Alexander Akerman, Sec.-Treas.

Fla., Plant City—Geo. A. Smith is promoting organization of building association.

Ky., Hickman—New Farmers & Merchants Bank, capital \$75,000, incorporated by J. M. Hubbard, R. M. Isler and others.

Ky., Louisville—Fraternal Savings & Investment Co., capital \$25,000, incorporated by R. Q. Stout, Thomas F. Parks and others.

Md., Baltimore—Ben Franklin Building and Loan Assn., 348 Equitable Bldg., capital \$1,000,000, incorporated with M. A. Hartman, Pres., 13 W. Pratt St.; Joseph Katz, V.-P., Franklin St. and Park Ave.; Myer Smith, 2nd V.-P., 2527 Brookfield Ave.; Benj. Cohen, 3628 Reisterstown Rd.; Leoner Schwartzman, Treas., 924 Chauncey Ave. (Lately noted).

Md., Baltimore—Kierileo Building and Loan Assn., 301 Water St., capital \$1,300,000, incorporated by Thomas Swann, Harry Echle and Thos. E. Brooks.

Md., Baltimore—National Lodge Finance Co., 346 Equitable Bldg., capital \$10,000, incorporated by Joseph Anderson, Sarah V. Anderson and Harry M. Rodman.

Md., Baltimore—Potomac Building Loan Assn., Inc., 546 Equitable Bldg., capital \$250,000, incorporated by Jno. H. Stevan, Harry L. Stevan, Aaron Domnitz and Mollie Davdove.

Md., Baltimore—Nationwide Collections, Inc., 617-A Equitable Bldg., incorporated by Julius Frederick Sandrock, Ruth Sandrock and Minnie Sandrock.

Md., Hagerstown—Hagerstown Building &

Loan Assn., Inc., 114 W. Washington St., capital \$1,000,000, incorporated by Wm. H. Miller, Aaron E. Reeher, Edwin C. Hook and others.

Mo., Kansas City—Columbia Securities Co., incorporated by Thornton Cook, S. E. Cook and others.

Mo., St. Joseph—United States Live Stock Insurance Co., capital \$200,000, incorporated by E. R. James, 6030 Lookout St.; Henry Dischner, 5907 King Hill Ave. and others.

S. C., Charleston—Peoples Security Co., capital \$150,000, organized with R. G. Rhett, Pres.-Treas.; Jos. E. Jenkins, Sec.

Tenn., Chattanooga—Nicholson Insurance Agency, incorporated by J. I. Nicholson, Willard Keen and others.

Tenn., McMinnville—First National Bank increased capital from \$75,000 to \$180,000; will also organize trust company with \$90,000 capital, to operate in connection with bank, to be called First Trust Co.; Joseph Gessler, V.-P., First National, will be executive officer.

W. Va., Clarksburg—Clarksburg Mortgage Loan Co., capital \$50,000, incorporated by I. D. Cole, E. M. Christie and others.

New Securities

Ala., Fairfield—Street Improvement—City, M. W. Pratt, Mayor, sold \$5500 6% bonds to Steiner Bros., Birmingham, at 99.25.

Ala., Huntsville—School—City voted \$150,000 bonds. Address The Mayor. (Lately noted.)

Ark., Pine Bluff—School—Pine Bluff School Dist., H. B. Strange, Sec. Bd. of Directors, sold \$290,000 5% bonds to Lorenzo E. Anderson & Co., St. Louis, Mo., at par and accrued interest. (Lately noted.)

Fla., Arcadia—Road and Jail—DeSoto County will vote Feb. 2 on \$280,000 bonds. Address County Comms.

Fla., Bartow—Road—Polk County Board of Comms., W. S. Wev., Deputy Clk., will vote Feb. 26 on \$3,600,000 5% bonds.

Fla., Bradentown—Street, Water, Sewer—City voted \$65,000 bonds to include \$43,000 for street, \$8000 for sewer, and \$14,000 for water extension bonds; L. L. Hine, City Clerk. (Lately noted.)

Fla., Brooksville—Road—Hernando County voted \$450,000 bonds. Address County Comms. (Lately noted.)

Fla., Bushnell—Highway—Sumter County will vote Jan. 30 on \$650,000 6% bonds. Address County Comms. (Lately noted.)

Fla., Clearwater—Road and Bridge—Pinellas County Comms., Road and Bridge Dist. No. 2, J. N. Brown, Clk., did not sell \$252,000 bonds. (Lately noted.)

Fla., Dade City—Road and Bridge—Pasco County Comms., A. J. Burnside, Clk., will receive bids until Jan. 7 for \$275,000 6% bonds of Gulf Special Road and Bridge Dist.; \$1000 denom.

Fla., De Land—School—Volusia County Board of Public Instruction, V. W. Gould, Chmn., will receive bids until Jan. 10 for \$75,000 \$500 denom. 5 1/2% bonds of Special Tax School Dist. No. 41. (Lately noted.)

Fla., De Funiak Springs—Paving—City sold \$15,000 paving bonds. Address The Mayor.

Fla., Fort Myers—Municipal Improvement—City voted \$445,000 bonds including paving, sanitary sewer, water mains and gas

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plant; Geo. S. Iredell, City Engr. (Lately noted.)

Fla., Miami—Sewer—C. L. Huddleston, Director of Finance, will receive bids until Jan. 8 for \$177,000 5% bonds.

Fla., Miami Beach Sta., Miami, Fla.—Municipal Improvements—City will vote Jan. 21 on \$307,000 bonds. Address The Mayor.

Fla., Miami—School—Miami School Dist. voted \$350,000 bonds to erect 3 schools and one addition; Dade County School Board will advertise for bids for bonds in about 30 days. (Lately noted.)

Fla., Orlando—Paving—City is reported considering issuance of \$100,000 paving bonds. Address The Mayor.

Fla., Pensacola—Road—Escambia County Comms. sold \$250,000 bonds to Caldwell & Co., Nashville, Tenn., and Steiner Bros., Birmingham, Ala., at \$264,175. (Lately noted.)

Fla., Umatilla—Improvements—City will receive bids until Jan. 29 for \$45,000, 6% bonds; C. A. Vaughn, Mayor. (Lately noted voted bonds.)

Fla., West Palm Beach—Municipal Improvement—City sold \$145,000 bonds to Farmers Bank & Trust Co., West Palm Beach.

Ga., Atlanta—Warrants—State Superintendent N. A. Ballard will receive bids until Jan. 17 for \$3,000,000 warrants.

Ga., Boston—Sewerage and School—City voted \$42,000 bonds for sewerage system and for school improvements. Address The Mayor.

Ga., Cedartown—Road and Highway—First Trust & Savings Corp. and Hibernia Securities Co., Inc., both of Atlanta, purchased \$90,000 5½% bonds.

Ga., East Point—Waterworks—J. H. Hillsman & Co., Atlanta, purchased \$25,000 5% bonds.

Ga., Moultrie—Road and Bridge—Colquitt County Comms., P. Q. Bryan, Clk., will receive bids until Jan. 15 for \$100,000 5% bonds.

Ky., Whitesburg—Road and Bridge—Letcher County is considering calling election March 15 on \$250,000 bonds.

La., Lafayette—Road—Lafayette Parish Police Jury, Geo. Crouchet, Sec., will receive bids until Jan. 10 for \$300,000 5½% bonds; \$1000 denom.

La., New Iberia—Electric, Road—City voted \$250,000 bonds to build electric plant and construct road. Address The Mayor.

La., Shreveport—Water—J. P. Dixon, Commr. of Finance, will receive bids until Jan. 22 for \$1,000,000 5% bonds.

Miss., Biloxi—Municipal Improvement—City sold \$200,000 5½% bonds to Caldwell & Co., Memphis and Nashville, Tenn., at premium of \$900. (Lately noted.)

Miss., Meridian—Water—City will vote Jan. 18 on \$80,000 bonds. Address The Mayor. (Lately noted.)

Mo., Greenville—Courthouse—Wayne County, C. V. Estes, Treas., will receive bids until Jan. 18 for \$50,000 bonds.

Mo., Plattsburg—Water—City Council sold \$9000 water extension bonds to Clay & Funkhouser Banking Co.

Mo., St. Joseph—Municipal Improvements—City, W. S. Willard, Comptroller, will receive bids until Jan. 14 for \$855,000 5% bonds.

N. C., Asheville—School—Buncombe Coun-

ty Comms. called election on \$25,000 bonds in Oakley School Dist.

N. C., Durham—School—Durham County, Bethesda School Dist., voted \$30,000 bonds; John W. Carr, Supt. County Schools.

N. C., Greensboro—School—City sold \$500,000 5¼% bonds to National Bank of Commerce and Stevenson Perry-Stacy Co., both of St. Louis, Mo., at premium of \$7060. (Lately noted.)

N. C., Louisburg—Street, Sewer, Electric, Funding—Town Comms., J. J. Barrow, Clk., sold \$43,000 6%, \$1000 denom. bonds to Weil, Roth & Irving Co., Cincinnati, O., at 101.82. (Lately noted.)

N. C., Maiden—School—Board of Comms. of Town of Maiden, S. M. Finger, Clk., will receive bids until Jan. 8 for \$80,000 bonds for Maiden Graded School Dist.; \$1000 denom.

N. C., Smithfield—School—Johnson County Board of Public Instruction, H. B. Marrow, Supt., will receive bids until Jan. 3 for \$30,000 Glendale School Dist. and \$55,000 Princeton School Dist. bonds; \$1000 denom.

N. C., Whiteville—School—Board of County Comms., A. W. Baldwin, Clk., will receive bids until \$50,000 Tatum for township school bonds of \$100 denom.

N. C., Williamston—School—Martin County Comms., S. S. Brown, Clk., sold \$100,000 5½% bonds to A. T. Bell & Co., Toledo, O., at 103.33. (Lately noted.)

Okla., Blackwell—Memorial Building—City defeated \$175,000 bond issue. Address The Mayor.

Okla., Guthrie—School—School Dist. No. 60 voted \$280,000 bonds. Addie Lee Lowther, Clk. Board of Education.

Okla., Ponca City—City will vote Jan. 8 on bonds to erect school in Third Ward. Address The Mayor.

S. C., Edgefield—Indebtedness—Edgefield School Dist. Trustees, J. W. Kemp, Sec., sold \$65,000 6% bonds to Baum, Bosworth & Co., Toledo, O., at \$68,323. (Lately noted.)

Tenn., Memphis—Revenue—C. C. Pashby, City Clk., will receive bids until Jan. 2 for \$750,000, 6% nine months revenue notes.

Tex., Alice—Road—Jim Wells County Comms. sold \$600,000 5½% bonds.

Tex., Austin—Road—Travis County, J. A. Belgor, Auditor, will receive bids until Jan. 12 for \$1,174,500 5% and 5½% bonds.

Tex., Austin—School—Tucker Royal, Chmn., State Board of Regents, will receive bids until Jan. 14 for \$2,500,000 bonds for improvements at University of Texas.

Tex., Austin—Filtration, School and Incinerator—City, W. D. Yett, Mayor, will receive bids Jan. 10 for \$850,000 bonds to include \$300,000 for filtration, \$500,000 for school and \$50,000 for incinerator. (Lately noted.)

Tex., Austin—Road—Travis County, George S. Mathews, Judge, will receive bids until Jan. 12 for \$34,000 special bonds.

Tex., Brownsville—Road—Cameron County defeated \$600,000 bonds; Oscar C. Dancy, County Judge. (Lately noted to vote.)

Tex., Carthage—Road—Panola County, A. D. Nelson, Judge, will receive bids until Jan. 26 for \$225,000 5½% bonds.

Tex., Cameron—School and Sewage—City, J. B. White, Mayor, voted \$150,000 school and \$25,000 sewage disposal plant bonds. (Lately noted.)

Tex., El Paso—Road—El Paso County, E. B. McClintock, Judge, will receive bids until Jan. 14 for \$1,260,000 5% bonds; \$1000 denom. (Lately noted to receive bids until Jan. 7).

Tex., El Paso—School—El Paso County is reported contemplating election on \$800,000 bonds; J. H. McBroom, Pres.

Tex., Fairfield—Road—Freestone County voted \$1,000,000 bonds. Address County Comms. (Previously noted.)

Tex., Fort Worth—Funding—City Commission authorized issuance of \$1,250,000 bonds. Address Mayor E. R. Cockrell.

Tex., Hereford—Hospital—Deaf Smith County voted \$50,000 6% bonds; W. M. Megert, Judge. (Lately noted.)

Tex., Houston—Bridge, Street, Paving—Harris County voted \$750,000 bonds; Chester H. Bryan, County Judge.

Tex., Houston—Drainage—City, H. A. Giles, Comptroller, sold \$147,000 bonds to Union National Bank and Second National Bank, both of Houston, at par and accrued interest. (Lately noted.)

Tex., Lamesa—Street—City, Mrs. J. R. Lowrie, Sec., will receive bids until Jan. 4 for \$40,000 6% street paving bonds. (Lately noted.)

Tex., Lone Oak—Water—City voted \$50,000 water system bonds. Address The Mayor.

Tex., San Marcos—School—City defeated \$200,000 bonds to erect high school and 2 ward schools; C. E. Rugel, Sec., Board of Education. (Lately noted.)

Tex., Seguin—Road—Gudalup County, Road Dist. No. 1, voted \$24,000 additional bonds; Lloyd W. Taylor, County Engr.; J. B. Williams, County Judge.

Tex., Seymour—Road and Hospital—Baylor County voted \$500,000 bonds; Ernest Tibbetts, County Judge. (Lately noted.)

Va., Big Stone Gap—Waterworks—City will vote Jan. 8 on \$38,000 bonds. Address The Mayor.

Va., Chatham—Water—City voted \$50,000 bonds. Address The Mayor.

Va., Portsmouth—Road and Bridge—Norfolk County, G. Taylor, Gwathmey, Clk., will receive bids until Jan. 10 for \$280,000 5% bonds.

W. Va., Charleston—Road—State Sinking Fund Comsn., Houston G. Young, Sec., will receive bids until Jan. 10 for \$200,000 5½% bonds; \$1000 denom.

W. Va., Charleston—Municipal Improvements—City defeated \$1,500,000 bonds. Address Mayor Wertz. (Lately noted to vote.)

Va., Dinwiddie—School—Dinwiddie County School Board, Jno. T. Hargrave, Clk., sold \$95,000 5¼ bonds to Prudden & Co., Toledo, O., at premium of \$181. (Lately noted.)

Va., Portsmouth—Improvement—Trust Company of Norfolk purchased \$619,000 Washington ward and \$362,000 Harrison Improvement bonds at \$966,476.30.

W. Va., Fairmont—Marion County, Union Dist. sold \$385,000, 5½% bonds, to Provident Savings Bank & Trust Co., Grau, Todd & Co., and L. R. Ballinger Co., all Cincinnati, at par, accrued interest and premium of \$500.

W. Va., Williamson—Mingo County, Stafford Dist., sold \$300,000, 5¼% bonds to Blanchett, Thornburgh & Vanderstall, Toledo, Ohio, at par, accrued interest and premium of \$750.

Financial Notes

Alamo Abstract and Title Co., San Antonio, Tex., increased capital from \$65,000

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned



West St. Louis, Mo.

Above: Removing 12 in. bell and spigot pipe after 19 years' service. This pipe is being hauled directly to another street where it is being re-laid.

Right: Replacing with 24 in. pipe.



As Your Town Grows—

What will become of your distribution system? When increased population requires larger mains there are two alternatives. If your system consists of some substitute for cast iron pipe you must discard the present installation. This means that your initial investment is entirely wasted. But if you have wisely installed cast iron pipe with bell and spigot joints you can remove it and replace with pipe of a larger capacity. The pipe which you take out can be relaid in a less congested district; it is still good for centuries of service.

United States Cast Iron Pipe and Foundry Company

General Offices: Burlington, New Jersey

SALES OFFICES:

Philadelphia: 1421 Chestnut St.
Pittsburgh: Henry W. Oliver Bldg.
New York: 71 Broadway.
Chicago: 122 So. Michigan Blvd.

Dallas, Tex.: Magnolia Bldg.
Birmingham: 1002 American Trust Bldg.
Kansas City, Mo.: Interstate Bldg.

Minneapolis: Plymouth Bldg.
Cleveland: 1150 E. 26th St.
Buffalo: 957 E. Ferry St.
San Francisco: Monadnock Bldg.

to \$100,000 and changed name to Alamo Abstract and Title Guaranty Co.

Crittendon County Bank and Trust Co., Marion, Ark., will reorganize with \$200,000 capital.

Finance Co. of America, Louis Eliasberg, Pres., 1511 Munsey Bldg., Baltimore, Md., will increase capital from \$500,000 to \$1,250,000.

American Bank & Trust Co., St. Charles and Union Sts., New Orleans, La., reorganized with Jno. Legier, Pres.; C. S. Bauman, V.-P.; Eben Harie, Wm. Pfaff, Sidney J. Besthoff and others.

Bank of Hattiesburg & Trust Co., Hattiesburg, Miss., converted into Commercial National Bank of Hattiesburg.

Commercial Credit Co., Wm. H. Grimes, Pres., Citizens Nat'l Bank Bldg., Baltimore, Md., increased capital from \$3,000,000 to \$4,000,000.

First National Bank and American National Bank, West Palm Beach, Fla., consolidated under name of First American Bank and Trust Co. with \$300,000 capital; E. M. Brelsford, Pres.; F. E. Decker, Ralph Payne and S. C. Kearley, V.-Ps.; H. L. Donald, Cash.

Fla., Palm Beach—First Bank and Trust Co., capital \$50,000, incorporated with E. M. Brelsford, Pres., Ira L. NeSmith, Sec. Treas. and Cash.

Life and Casualty Insurance Co., Nashville, Tenn., increased capital from \$600,000 to \$700,000.

Montgomery Trust Co., T. S. Crawford, Pres., Spartanburg, S. C. plans increasing capital from \$50,000 to \$100,000.

Portland Building & Loan Assn., Louisville, Ky., increased capital from \$7,000,000 to \$10,000,000.

Savings Finance Co., Louisville, Ky., changed name from Savings Realty Co. and increased capital from \$12,000 to \$50,000.

Travis Investment Co., San Antonio, Tex., increased capital from \$250,000 to \$500,000.

United States National Bank of Galveston, Galveston, Tex., succeeds Texas Bank & Trust Co.; I. H. Kempner, Pres.; R. Lee Kempner, Cash.

Workingmen's Loan & Building Assn., Newport, Ky., increased capital from \$1,200,000 to \$1,600,000.

Trade Literature

Tennessee Electric Power Progress.

The remarkable progress of the Tennessee Electric Power Co., whose general offices are at Chattanooga, Tenn., is attractively told and illustrated in a handsome folder addressed to its customers and patrons. For twelve years the company and its predecessors have supplied electricity to communities in middle and eastern Tennessee and its business has grown by leaps and bounds. It is remarked, until today it represents an investment of more than \$50,000,000. During the present year the company has spent \$4,000,000 for new construction and next year it will have to spend from \$5,000,000 to \$6,000,000, this being part of a \$40,000,000 program for building new lines and power developments during the next ten years. Like some other public service corporations this company is offering its shares to those whom it serves, which has practically the effect of making their interests mutual, tending to insure stability and continued progress and the contents of the folder tell

how this is done. The moneys so subscribed are used to provide the capital requirements of the organization in preparing to meet the demands of business in the future. An outline map shows at a glance the extent of the company's system.

A Book of Fine Engineering Pictures.

"Industrial Plants—Volume 3," is a finely prepared book of pictures with suitable references and descriptions and which is issued by Chas. T. Main, Engineer, Boston. It contains fine half tones of interior and exterior views of industrial establishments

built under the engineering direction of the Main organization and including buildings in this and other countries. There are altogether 87 pages of information and illustrations and among the many plants shown are those of the following companies in the South. American Sugar Refining Company, Baltimore, Md.; Anniston Cordage Co., Anniston, Ala.; W. J. Dickey & Sons, woolen mill, Oella, Md.; and the Tennessee Eastern Electric Co., power station, Watauga, Tenn. Four pages are devoted to the descriptions and illustrations of the big sugar factory and two to the Tennessee power plant. The other two occupy one page each.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Sale of West Virginia Coal Land.

Announcement is made elsewhere in this issue that 1600 acres of undeveloped coal land will be sold at Williamson, W. Va., at 10 A. M. Saturday, January 19. The tract, which is in Mingo County, is tributary in part to the Chesapeake & Ohio Railway and partly to the Norfolk & Western Railway. Harry Scherr, S. D. Stokes and Lant R. Slaven, all of Williamson, are special commissioners in charge and can furnish particulars. Further information will be found in the formal announcement.

Jesse M. Jones.

Jesse M. Jones, general agricultural agent of the Seaboard Air Line Railway Co., died suddenly at the home of his mother near Montgomery, Ala., on December 23. Mr. Jones, who was born November 30, 1878, at Colony City, Kan., was educated at the Kansas State Agricultural College, Manhattan, Kan., and graduated in 1903. In 1910 he was appointed agricultural agent at Montgomery and in 1911 he served as professor of animal husbandry at the Alabama Polytechnic Institute, Auburn, Ala. After that he went to Washington in the extension work of the United States Department of Agriculture and later was director of extension work at the Virginia Polytechnic Institute at Blacksburg, Va. Mr. Jones entered the service of the Seaboard Air Line at Norfolk, Va., on May 15, 1919. Lately his office has been at Savannah, Ga. He leaves a widow and two children.

A Road Material to Be Used Cold.

"Ak-wa-falt" is an asphaltic material for cold application, composed of asphalt, water and filler which is made by the United States Asphalt Refining Company, 90 West St., New York. The manufacturers state that the uses of this material are varied and many. New pavements, driveways, and sidewalks can be constructed with it and it is particularly valuable for repairs to any form of pavement, such as asphalt, asphaltic concrete, asphalt macadam, brick, cement concrete and macadam. It is also especially adaptable for surface treatment on macadam, asphalt macadam and cement concrete roads and it is deemed one of the best and most desirable materials for building grade crossings for railways, in the construction of which the use of planking is being abandoned for the use of asphalt compounds. It is said to be economical, and does not require the services of an expert or of skilled labor. A circular presents a picture showing how a grade crossing is built with it.

Eastern Offices Opened.

The Bay City Dredge Works, of Bay City, Mich., has established an eastern sales office at 302 Broadway, New York City, under the charge of E. P. Reading; also a branch office at 51 Ames Building, Boston, Mass., under the charge of Thomas D. Connolly.

Many Sales in the South.

Out of 121 sales and installations of their products since November 21, the York Manufacturing Co., manufacturers of ice and refrigeration machinery, York, Pa., have made 31 in the South at various places as follows: Sparrows Point, Md. (for steamer use); Bradenton, Fla.; August, Ga.; Kansas City, Mo.; El Paso, Tex.; Cochran, Ga.; Oklahoma City, Okla.; Lafayette, La.; Opelika, Ala.; Houston, Tex.; Jefferson City, Mo.; St. Petersburg, Fla.; St. Louis, Mo.; Ironton, Mo.; Waurika, Okla.; Ardmore, Okla.; Close, W. Va.; Washington, D. C.; Dallas, Tex.; Lynchburg, Va.; Latonia, Ky.; Boonville, Mo.; Kiefer, Okla.; Wheeling, W. Va.; New Orleans, La.; Sli-dell, La.; Ste. Genevieve, Mo.; Dublin, Ga.; Waco, Tex.; Rogersville, Tenn. At St. Louis two installations were made.

Several Machines Improved.

The Sullivan Machinery Co., 122 South Michigan Ave., Chicago, have made several improvements in their angle compound air compressors which they have manufactured for nearly 15 years and which are distinguished for space economy, high air efficiencies and low power consumption per unit of air compressed at all load stages. The "wafer" air valves are now used on all sizes and the three pass counter current intercooler is now a standard feature. They are built in seven unit sizes from 450 to 1700 cubic feet of free air per minute for single machines and in twin unit up to 3700 cubic feet. They are good for working pressures up to 120 pounds. For more than a year this company has had under test their new differential valve water drifting drill, Class D. W. 64, which is a 130-pound machine that may be operated by one man if desired, but it is intended for heavy as well as for light tunneling and drifting work. A bulletin, No. 81-C, dated in August, but just released, describes the machine in detail. The Sullivan portable air compressor has also had new features added to it and it will be shown at the Road Builders' convention in Chicago January 14.

BUY NOW AND SAVE!!

These items represent an investment amounting to thousands of dollars. We have concluded to turn this stock into ready cash in the shortest possible time. Everything is offered for

IMMEDIATE SALE!

To do this we realize that we must make our prices so attractive that alert buyers will be quick to snap up these wonderful values.

What Can You Use?

1-95 ton BUCYRUS RAILROAD TYPE STEAM SHOVEL, WITH 5 YARD DIPPER.

3-70 ton BUCYRUS RAILROAD TYPE STEAM SHOVELS, WITH 2½ YARD DIPPERS.

Above Shovels are rebuilt—available for prompt shipment.

1-10" x 16" BUCHANAN JAW STONE CRUSHER. Style "B." Mounted on Trucks.

1-KENT CRUSHING AND PULVERIZING MILL.

1-9" x 10" No. 924 GOULDS TRIPLEX VERTICAL POWER PUMP. Single acting. Iron plungers. Capacity 350 gals. per minute, pressure up to 100 lbs., 6" suction, 5" discharge. Tight and loose pulleys 20" x 8".

1-8" x 8" DEANE TRIPLEX VERTICAL POWER PUMP. Capacity 235 gals. per minute, 6" suction, 5" discharge, tight and loose pulleys, 30" x 7".

1-10" x 6" x 18" CAMERON STEAM PUMP. Capacity 175 gals. per minute, 4" suction, 3" discharge.

1-14" x 10¼" x 10" WORTHINGTON DUPLEX STEAM PUMP. Capacity 700 gals. per minute, 8" suction, 7" discharge.

1-ROTARY DRUM SAND DRYER. Drum 36" dia., 15 ft. long. Equipped with coal or wood burning furnace.

2-7½" x 10" DAKE DOUBLE CYLINDER STEAM HOISTS, with single geared drum. Equipped with reversing throttle valve.

1-24" HORIZONTAL CENTRIFUGAL PUMP, 24" suction, 24" discharge, suitable for head up to 50 ft. Belt pulley 32" x 20". Manufactured by Kingsford Machine Company.

1-10" HORIZONTAL CENTRIFUGAL PUMP, 12" suction, 10" vertical top discharge, suitable for head up to 50 ft. Belt pulley 18" x 15". Manufactured by Fulton Machine Company.

1-12" x 12" x 10" WORTHINGTON DUPLEX STEAM PUMP. Capacity 1000 gals. per minute, 10" suction, 8" discharge.

1-10" x 16" ERIE CITY AUTOMATIC CENTER CRANK STEAM ENGINE—50 H.P.

500 TON I-BEAMS, CHANNELS, ANGLES, RE-INFORCING RODS, ETC.

300 TON NEW STEEL PLATES, 7/16", 1/2", 9/16" thick, 18" to 48" wide, 14 to 24 ft. lengths.

6-30" dia. 70' high STEEL SELF-SUPPORTING SMOKE STACKS. Lower half made of 1/4", upper half 3/16" plate. Bell bottom 48" dia., with heavy castiron base plates.

4-7000 GAL. NEW STEEL STORAGE TANKS. Square. Size 6' 9" x 10' x 16' 3". Thickness of plate 3/8". Weight about 17,000 lbs.

60-12 yard ALL STEEL HAND DUMP CARS—STANDARD GAUGE.

HARRIS BROTHERS CO.

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HOISTING ENGINES

In Stock in Baltimore

DOUBLE CYLINDER 3 DRUM AND BOILER

Number
83-7½x12 Mundy.
81-8 x12 Mundy.
80-8½x10 National.
87-9 x10 Lambert.

DOUBLE CYLINDER DOUBLE DRUM AND BOILER

10-5 x6 Flory.
75-6 x10 Mundy.
37-6½x 8 Flory.
13-6½x10 Flory.
82-6½x10 Flory.
2-7½x10 Mundy.
45-7½x10 National.
85-8½x10 Lidgerwood.
84-8½x10 Lambert.
44-9 x10 Lidgerwood.
102-9 x10 Lidgerwood.

DOUBLE CYLINDER SINGLE DRUM AND BOILER

38-6½x10 Flory.

DOUBLE CYLINDER DOUBLE DRUM SKELETON SWINGING GEAR ATTACHED

86-7 x10 Lidgerwood, place for Boiler.
72-8½x10 Lambert.
73-8½x10 Lambert, place for Boiler.
53-9½x12 Lambert.

SWINGING ENGINES

51-3 x4 Mead & Morrison.
88-4½x6 Mead & Morrison.
100-4½x6 Mead & Morrison.
90-4½x6 Mundy.
103-104-105-106-4½x6 Mundy.
107-4½x6 National.
66-5 x6 Lidgerwood.

EVERY item listed here is either new or rebuild and will pass the most rigid inspection.

Number
67-5 x6 Lidgerwood.
68-5 x6 Lidgerwood.
77-7 x8 American.
34-15-8½x8 Lidgerwood.

DOUBLE CYLINDER SINGLE DRUM SKELETON

7-5 x 6 Lidgerwood, Reversing.
79-5 x 7 Orr & Sembower.
8½-5 x 7 Lidgerwood.
25-5 x 8 Lidgerwood, Reversing.
35-6½x 8 Glover.
28-6½x10 Con. Plant.
29-6½x10 Con. Plant.
26-7 x10 Hunt.
22-8 x10 Hunt, Reversing.
40-8½x10 Lidgerwood, 4 Winch Heads, Reversing.
24-8½x10 Lidgerwood, Reversing.
112-2-8½x10 Orr & Sembower, Reversing.
113-7-8½x10 Orr & Sembower, Reversing.
61-5-8½x10 Mead & Morrison, Reversing.
23-9 x10 Roberts.
52-12x12 Lambert, Reversing.
27-7 H.P. Dake.

DOUBLE CYLINDER DOUBLE DRUM SKELETON

Number
11-5 x 8 Lidgerwood.
43-6½x 8 Lidgerwood.
42-6½x10 Crook.
41-6½x10 Lambert, place for Boiler.
32-6½x10 American.
20-6½x12 Mundy.
15-6½x12 Mundy.
39-2-7 x 8 American, Reversing.
19-7 x10 Lidgerwood.
21-7 x10 Lambert, place for Boiler.
36-7 x10 Flory, place for Boiler.
93-7 x10 Lidgerwood.
94-7 x10 Lambert.
95-7 x10 Lambert.
96-7 x10 Pittsburgh.
101-7 x10 Flory.
7 x10 Marine.
7½x10 Mundy.
46-8 x10 National, place for Boiler.
78-8 x10 Marine Iron Works.
111-2-8½x10 Mead & Morrison, Reversing.
76-8½x10 American.
97-8½x10 Flory, place for Boiler.
108-2-9x10 Lidgerwood.
99-10 x12 Mead & Morrison.
14-20 H.P. Dake.

DOUBLE CYLINDER 3 DRUM SKELETON SWINGING GEAR ATTACHED

89-7x10 Lidgerwood.
DOUBLE CYLINDER
3 DRUM SKELETON
63-7 x10 American, place for Boiler.
64-7 x10 American, place for Boiler.
74-7 x10 Flory.
58-8½x10 Flory.
98-8½x10 Lidgerwood.
70-9 x10 Mead & Morrison.

Sharp and Conway Sts. **LOUIS A. TARR, Inc.** Baltimore, Md.

City Planning Commission for Jacksonville.

Jacksonville, Fla., December 29—[Special.]—At the suggestion of the Chamber of Commerce, Mayor John T. Alsop, Jr. has recently named a city planning commission for Jacksonville. The commission has elected Frank P. Deering, chairman, Horace C. Avery, vice-chairman, and George W. Simons, Jr., secretary. The commission will hold its initial meeting soon to discuss preliminary plans. Mr. Simons is Chief Sanitary Engineer of the Florida State Board of Health.

The city of Richmond, Va., H. C. Cofer, comptroller, has sold \$3,275,000 of bonds to the following associate purchasers: Estabrook & Co. and W. A. Harriman & Co., both of New York; Merchants National Bank and Scott & Stringfellow, both of Richmond.

Modern Apartment for Texarkana.

Texarkana, Ark.-Tex.—Citizens of Texarkana have organized the Texan Apartment Hotel Corporation for the purpose of erecting a modern, five-story apartment building here. The structure will be semi-fireproof, finished in Mosaic bronze with Indiana limestone relief. A court 40 by 70 feet will lead from the street to the entrance of the building and a 20-foot driveway will surround the structure.

There will be 55 apartments of one to five rooms each and on the ground floor a cafe, grocery, floral shop, barber shop, etc. The building will be heated by steam and equipped with elevators. In the rear there will be a garage to accommodate 30 cars.

Bonds in the amount of \$280,000 have been voted at Guthrie, Okla., for the purpose of erecting a new high school building.

Forms for your Bond, Stock and Security Issues engraved or printed

We have specialized on this work for more than 40 years, and can furnish highest credentials as to character and quality of work and absolute responsibility. Let us send samples and quote on your requirements.

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223-5-7 Chestnut St. 20 Broad St.

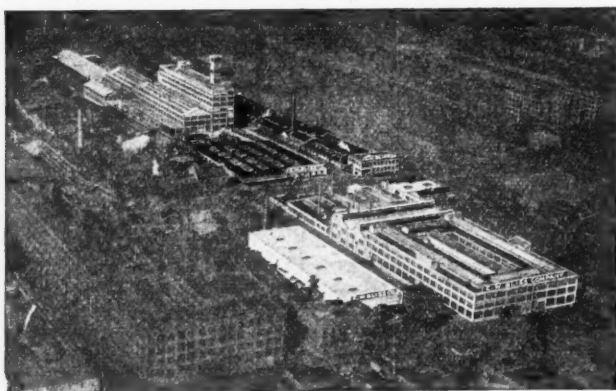


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Elevated tanks, steel reservoirs and standpipes for municipal service. Storage tanks, Hortonspheres, Wiggins floating roofs and refinery equipment for the oil industry. Gasholders, tanks and other steel plate work for gas plants. Surge tanks and penstocks for power installations. Conical-bottom tanks for railroads. Molasses tanks for sugar business. Steel plate work of all kinds for every industry.

Chicago Bridge & Iron Works
ATLANTA
1045 Healey Building
NEW YORK DALLAS
3113 Hudson Terminal Bldg. 1608 Praetorian Bldg.

Your special machinery—



made in record time and at reasonable cost in this large plant

IF you are planning to build special machinery.

AND IF you anticipate the job will be a costly one for your own organization because of interference with regular production, making or buying special tools, delays and errors due to experiments in determining how to go about it, and so forth,—

COME TO BLISS—let the Bliss engineers help you plan the machine, and let the big Bliss plant shown here build it for you. Our estimate may surprise you. It's worth asking for.

BLISS

E. W. BLISS CO.

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AND WORKS

BROOKLYN, N. Y., U. S. A.

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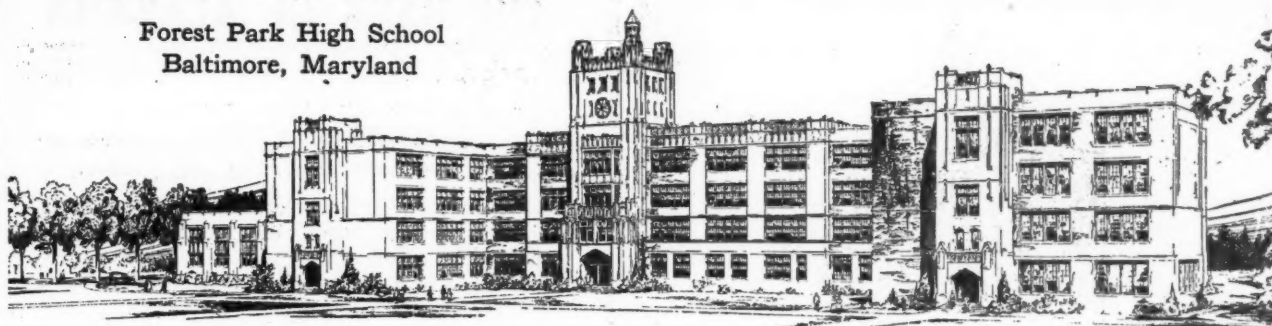
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ITALY, 345 Via Nizza, Turin

FRANCE, 54 Blvd. Victor-Hugo, St. Ouen, Paris

Forest Park High School
Baltimore, Maryland



Parker, Thomas and Rice, Architects

J. Henry Miller, Inc., Builders

The Millwork used
throughout this
building furnished by

DIVINE MILLWORK CO.

WILMINGTON, N. C.

P. O. BOX 776

WOODWORK OF EVERY DESCRIPTION



TOUGH WORK

The Thew glories in a hard job. Old macadam or concrete that would stop any other three-quarter yard machine is handled day after day by the Type O Thew.

The small refinements and conveniences that are installed from time to time add to the operator's enthusiasm for his Thew Shovel.

So don't be afraid of the hard job. Take the contract and get a Thew Shovel. Build your organization around the Thew and you will get your output. Not one day, but every day.

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The Thew Shovel Company
LORAIN, OHIO

Barriers of Steel Afco Fences

for Industrial Property Protection

command your preference. They have certain structural superiorities—including the distinctive angle line post and integral barb-wire overhang—not to be found in any similar product. You are not ready to buy fence until you have investigated the goodness of the Afco product.

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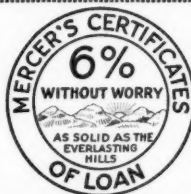
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A rich and stimulating volume it is, valuable to the investor, of daily use to the business man, and exceedingly helpful to student and educator. In thoughtfully compiled records like this is much of the meat of history; and truly may it be said of this one that it is a book, not only to be tasted, but to be "chewed, swallowed and digested."

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Chas. Warner Smith, Vice-President.
Harry W. Davis, Secretary and Treasurer.

Better Prices Secured by Peanut Growers Cooperative Association of Georgia.

Albany, Ga., Dec. 22—[Special]—With the end of the first year's operation of the Georgia Peanut Growers' Cooperative Association in sight, it is obvious that the organization has been more successful than its most ardent advocates predicted.

In past years it has been the rule for the peanut market to open fairly high in the early fall and decline gradually under the influence of heavy selling as the growers all rushed their crops to market in an effort to get the best price they could before any further slump occurred.

Then in the spring, after the bulk of the crop had passed out of the hands of the growers, prices usually rose to a much higher level, which always helped those who had bought the peanuts, but did very little good to those who produced them.

This year, however, the market opened with peanuts well above \$100 a ton, or above what the average of the 1922 crop was sold for. This level was maintained throughout the entire gathering and delivery season, only slight fluctuations being noted, with the tendency upward.

Obviously, this could have been due but to one thing, the control of 70 per cent of the state's commercial peanut crop by one cooperative marketing association, the Georgia Peanut Growers' Cooperative Association.

Not only has this association been of real service in bringing better prices to the peanut growers of the state, but in many other ways as well. It was too late when the association was formed last year to do anything in the way of seed selection, but by insisting from the first on the proper cultural methods it secured for its members uniformly heavier crops and uniformly better nuts than were grown by farmers not members of the association.

Telephone Industry Active in Georgia—Additions to Plants Cost Over \$2,000,000 for Year.

Atlanta, Ga., December 22—[Special.]—According to telephone officials, 1923 was the greatest year in the history of the telephone industry in Georgia in the matter of additional investment, new construction and the number of new telephones installed.

It is estimated that, gross additions to telephone plants in Georgia during the year amounted to more than \$2,000,000. Approximately 21,772 telephones were installed, and 15,486 discontinued, leaving a net gain for the year of 6286. Despite this gain, the demand for service continues as strong as ever and activity next year is expected to be fully as great.

During the year the Bell Telephone System in Georgia used 47 car-loads of cable, 2 car-loads of copper wire, and 237 car-loads of poles. There was added to the system 1660 miles of long distance wire, 37,000 miles of wire for local service, 45 miles of aerial cable, 21 miles of under-ground cable, and 330 miles of pole line.

New switch-board and central office equipment to care for this growth and development cost \$727,000, while the subscriber's stations and apparatus represented an investment of \$700,000 and local exchanges and additions \$720,000.

Bids will be received by the Board of Revenue of Montgomery County, Montgomery, Ala., until January 21 for grading and draining a road connecting Pike road and Mount Meigs road with the Vaughan road, a distance of approximately five miles. Specifications, profiles and information may be obtained from the office of Thomas H. Edwards, county engineer.



PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close February 4, 1924.

Sealed proposals, indorsed "Proposals for Hospital Construction, Augusta, Georgia Specification No. 4922" will be received at Room No. 791, U. S. Veterans' Bureau, Arlington Building, Washington, D. C., until 11 o'clock A. M. February 4th, 1924, and then and there publicly opened, for the following work at the U. S. Veterans' Hospital No. 62, Augusta, Georgia. **Part I.** New buildings, including plain and reinforced concrete; cast concrete; brick and hollow tile work; structural steel; wood framing, sash, doors and finish; stucco, plaster and metal lath; interior marble, tile and slate work; slate, built-up and tin roofing; sheet metal work; steel sash; steel doors and steel covered doors and trim; miscellaneous steel and iron work; screens; hardware; painting and glazing; hand operated dumbwaiter; and electric freight elevator. **Part II.** Plumbing, including fixtures, and outside sewerage, drainage and water supply systems. **Part III.** Complete heating and steam distributing systems for each building and outside steam distributing system, including high pressure and vacuum return lines, hot water heaters; underground concrete trenches, manholes; and cast iron manhole frames and covers; and boiler house equipment and piping, including brick settings for return tubular boilers, smoke flue, feed water heater, combined twin pump and receiver, ash handling system, complete piping system for apparatus and the installation of horizontal return tubular boilers, and boiler feed pump furnished by the Government. **Part IV.** Lighting systems for each building; power systems and telephone conduits in certain buildings; and outside electric distributing and

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PUBLICATION DAY: Thursday.
FORMS CLOSE 4 P. M. Monday.
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THE DAILY BULLETIN OF THE MANUFACTURERS RECORD: Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest. The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements. The same rate applies—35 cents per line per insertion.

street lighting systems, including transformers, panel boards, fixtures, conduits, ducts, and wiring. **PART V.** Remodeling building, including plumbing, lighting and heating. Drawings and Specifications No. 4922 may be obtained on application to the Construction Division, U. S. Veterans' Bureau, Room No. 791-A, Arlington Building, Washington, D. C. Deposits of checks or postal money order in amount \$100.00 payable to the Treasurer of the United States, is required as security for the safe return of the drawings and specifications within ten days after date of opening proposals. **FRANK T. HINES, Director.** January 4, 1924.

Bids close January 28, 1924.

U. S. Engineer Office, Wilmington, N. C. Sealed proposals will be received here until 12 M., January 28, 1924, and then opened for construction of one 90-foot steel, stern wheel snagboat. Further information on application.

Bids close January 12, 1924.

\$1,140,500 5% Special Road Bonds
\$34,000 5½% Special Road Bonds

Austin, Texas.

\$1,140,500 Travis County Special Road Bonds dated February 1st, 1924, denomination \$1000, 5% interest, payable semi-annually, maturing serially. Various amounts, one to twenty-eight years; principal and interest payable at Seaboard National Bank, New York City.

Bids received up to January 12, 1924, at 10 o'clock A. M. Certified or cashier's check for \$10,000, payable to county judge to be forfeited as liquidated damages if successful bidder fails to carry out his contract. Bids opened at hour mentioned by Commissioner's Court, in the Court House at Austin, Texas.

Also at the same time and place \$34,000 Travis County, Texas Special Road Bonds, dated January 1st, 1924, denomination \$500 5½% interest, payable July and January 1st, each year, maturing serially. Various amounts, one to twenty-nine years. Certified or cashier's check as above for \$2000.

Full and complete detailed statement of the financial condition of Travis County, Texas, and full description of the above bonds furnished promptly upon application to the undersigned.

J. A. BELGER,
County Auditor.

Bids close January 15, 1924.

**\$350,000 Thirty-year Public
High School Bonds**

Mobile, Alabama.

The Public High School Bonds of the City of Mobile, Alabama, for \$350,000.00 are hereby offered for sale; said bonds to be dated March 1st, 1924, payable 30 years after date, and each bond to be for \$1000 with interest coupons at the rate of five per cent. per annum, payable semi-annually, and said bonds and coupons to be payable at the American Exchange National Bank of New York City.

Sealed bids for said bonds to be addressed to S. H. Hendrix, Esq., Clerk of the Board of City Commissioners, Mobile, Alabama; said bids to be received up to and including Tuesday, January 15th, 1924, at 12.00 o'clock noon thereof, at which date and hour said bids will be publicly opened in the Council Chamber in the City Hall, Mobile, Alabama, and on said date said bonds shall be awarded.

Each bid shall be accompanied by a certified check for \$1000.00, payable to the City of Mobile, to be returned, if bid not accepted. No bid to be for less than the face value of said bonds and accrued interest thereon up to date of delivery of bonds. The right is reserved by the City of Mobile and its Board of Commissioners to reject any and all bids.

R. V. TAYLOR,
Mayor, Mobile, Alabama.

Bids close January 19, 1924.

Water Works

Charlottesville, Va.

Sealed proposals will be received by the City Manager at his office, Charlottesville, Va., until 11 o'clock A. M., January 19th, 1924, for the construction of approximately 12 miles of 18-inch Cast Iron Pipe Line and 700 lineal feet of 4x6 Tunnel, a Diversion Dam, Grit Chamber and Regulating works. Pipe and Specials will be furnished by the City of Charlottesville, f.o.b. cars. Plans and specifications can be seen on or after January 1, 1924, at the office of the City Manager, Charlottesville, Va., and at the offices of the Engineers, Fuller and McClintock, 170 Broadway, New York City, or Lee H. Williamson, National Bank Building, Charlottesville, Va. Proposal blanks will be forwarded upon application to the City Manager. Construction Bond to the amount of the contract will be required and each proposal must be accompanied by a certified check for \$10,000.00.

Arrangements for inspection of the line can be made at the office of Lee H. Williamson, National Bank Building, Charlottesville, Va.

The right is reserved by the City Manager to reject any or all bids.

BOYD A. BENNETT, City Manager.

Bids close January 10, 1924.

Water and Sewerage Systems

Conover, N. C.

Sealed proposals will be received by the Mayor and Board of Aldermen of the Town of Conover, N. C., until 2.00 o'clock P. M., Thursday, January 10, 1924, for the construction of Water Supply and Sewerage Systems.

The work consists of the construction of a water supply line from Newton, N. C., to Conover, and a distribution system; also a sewerage system of approximately four miles of sanitary sewers varying in diameter from six to ten inches, with all necessary appurtenances.

Plans will be on file and may be examined at the office of the Mayor of Conover, and at the offices of Spoon & Lewis, Engineers, 407-8-9 American Bank Bldg., Greensboro, N. C., after January 1, 1924. After that date Plans, Specifications, Bid and Contract Forms may be secured from the Engineers upon receipt of \$10.00, of which \$5.00 will be returned to bona fide bidders upon return of the plans in good condition to the Engineers.

Each bid must be accompanied by a certified check or bidder's bond in the sum of \$2000.00 payable to the Treasurer of the Town of Conover, N. C.

Proposals will be opened publicly with the usual rights reserved.

CONOVER BOARD OF ALDERMEN,
C. R. Brady, Mayor.

SPOON & LEWIS, Engineers,
Greensboro, N. C.

Bids close February 5, 1924.

Sewers

Baton Rouge, La.

Sealed bids will be received by the Commission Council of Baton Rouge, La., at the City Hall, until 11.00 A. M., Feb. 5th., 1924 for constructing certain Sanitary Sewers and appurtenances in the City of Baton Rouge. Approximate quantities:

2100 lin. ft. 10 inch V. C. Pipe
2500 lin. ft. 24 inch V. C. Pipe
520 lin. ft. 36 inch Cast iron pipe through levee

17 Manholes
Plans and specifications on file in the office of the Consulting Engineer, City Hall, Baton Rouge. Copies may be had upon payment of \$7.50, which will not be returned.

A certified check or bidders bond for \$3000.00, payable to the Commissioner of Finance, Baton Rouge, must accompany each bid. The right is reserved to reject any or all bids.

J. W. BILLINGSLEY,
Consulting Engineer.

Bids close January 15, 1924.

Paving and Sewers

Talladega, Ala.

Sealed proposals will be received by the undersigned until 2.00 o'clock P. M. Tuesday, January 15, 1924, at the City Clerk's office in the City of Talladega, Alabama, and then be opened, for certain grading, curb and gutters; sidewalks; storm and sanitary sewers and 17,000 yards each of the following alternates:

Plain and Reinforced Concrete,
Warrenite Bitulithic,
Asphaltic Concrete, and
Vitrified Brick.

Certified check or bidders bond for Fifteen Hundred Dollars (\$1500.00) must accompany each bid. Said work embraces paving of East and South Streets under Improvement Ordinances Nos 374 and 375.

Plans and specifications can be secured from the undersigned, or from the office of the Consulting Engineer, Birmingham, Alabama. The right is reserved to reject any and all bids.

(Signed) M. R. JOINER, President, City Commission.

Robert L. Totten, Consulting Engineer,
Birmingham, Alabama.

Bids close January 10, 1924.

Water Main

Norfolk, Va.

Sealed proposals for relaying a 16-inch water main will be received at the office of the Director of Public Works, Norfolk, Virginia, until 12 o'clock noon, January 10, 1924, at which time and place they will be publicly opened.

The work includes taking up 22,000 feet of a present 16-inch main, hauling to the new location, and relaying same, together with necessary valves, hydrants and fittings, with cross-connections to small existing mains.

Plans, specifications, form of proposal, contract and bond may be obtained at the above office upon deposit of \$10.00, which will be refunded when plans and forms are returned.

A certified check on a Norfolk or other acceptable bank in the sum of Five Hundred Dollars (\$500.00) must accompany each bid. The right to reject any or all bids is reserved.

WALTER H. TAYLOR, 3RD.
Director of Public Works.

Bids close January 18, 1924.

Channel Construction

ENGINEERING DEPARTMENT
Parish of Calcasieu, Louisiana.

Lake Charles, La., December 15, 1923.
Sealed bids will be received by the Police Jury of the Parish of Calcasieu, Louisiana, until noon, Friday, January 18th, 1924, in the Police Jury Room, Court House, Lake Charles, Louisiana, and then there publicly opened, for the construction of a Navigation Channel 30 feet deep by 125 feet wide at the bottom, from Lake Charles to the Sabine River.

SECTION 3.

The construction of a channel 30 feet deep and 125 feet wide at the bottom, from Station 714, East along the Intracoastal Canal, to Station 580. A distance

of 2.54 miles. Approximately 2,020,000 cubic yards of earth to be moved.

This work is along the present Intracoastal Canal, which on this Section is 8 feet deep and 40 feet wide on the bottom. The Atlantic, Gulf and Pacific Dredging Company have a contract with the War Department to deepen and widen this part of the Intracoastal Canal to 12 by 90 feet; their dredge "Texas" is working about Station 760 at present and will pass Station 714 going East between January 1st and 10th.

From Station 714, East to Station 680, the land is marsh, elevation +1.0 to +2.0. The Gum Cove Ridge lies between Station 680 and 580, elevation +2.0 to +12.0. Average stage of water +1.2. All depths and elevations refer to Mean Low Gulf Datum.

SECTION 5.

The construction of a channel 30 feet deep and 125 feet wide at the bottom, from Station 58 on the Intracoastal Canal, West to Station 322. A distance of 5 miles.

Approximately 3,480,000 cubic yards of earth to be moved.

This work is along the present Intracoastal Canal, which has been deepened and widened from Station 58 to 120, to 12 feet deep by 90 feet wide on the bottom. From Station 120 to 322 the Canal is 6 feet deep by 40 feet wide on the bottom, with a Pilot cut from Station 176 to 322, 12 feet deep by 40 feet wide on the bottom, along the South side of the old ditch. The Government dredge "Blackwater" is at present at Station 120 working West completing the Canal to 12 feet depth and 90 feet width. The Blackwater will probably pass Station 176 about February 1st. From Station 58 to 90 is a low Ridge; Elevation +2.0 to +7.0; from Station 90 to Station 322 is a Black Grass Marsh, with knolls; Elevation +1.0 to +3.0. Average stage of water +1.2. All elevations and depths refer to Mean Low Gulf Datum.

Every bid shall be accompanied by a certified check in an amount equal to five per cent. (5%) of the amount of the bid, payable to the Treasurer of Calcasieu Parish, which check shall be forfeited to the Parish should the bidder to whom such contract is awarded fail to enter into the contract required within ten (10) days after notice to do so from the Police Jury of Calcasieu Parish.

The Police Jury reserves the right to reject any or all bids.

V. R. REEVES,
President, Police Jury.
FRED SHUTTS,
Parish Engineer.

Bids close January 15, 1924.

Road Construction

OFFICE OF THE STATE ROAD DEPARTMENT.

Tallahassee, Fla., December 20, 1923.

Sealed proposals will be received at this office until 12 o'clock noon on the 15th day of January, 1924, for the construction of the following sections of road:

Hard surfacing (Plain cement concrete, asphaltic concrete, sheet asphalt and Bituminous Macadam on Rock Base and 8" rock Base only) including concrete curb and gutter.

Proj. No.	Road No.	County	Length
572	13	Bradford	7.3
594	13	Bradford	9.1
Hard surfacing (Plain cement concrete, asphaltic concrete, sheet asphalt and Bituminous Macadam on Rock Base and 8" rock base only) including drainage structures and concrete curb and gutter.			
607	13	Bradford	5.1

All work to be done in accordance with plans and Specifications of the State Road Department.

A certified check or bidder's bond made payable to the Chairman of the State Road Department in the sum of five (5%) per cent of the amount bid, must accompany each proposal.

Plans may be examined at this office or at the offices of the Division Engineers, or may be obtained upon application to this office for the sum of \$5.00 each, which amount will be refunded if plans are returned in good condition by a Bonafide bidder within 10 days after bids have been received.

The right is reserved to reject any or all bids.

H. B. PHILIPS,
Chairman.
J. L. CRESAP,
State Highway Engineer.

Bids close January 15, 1924.

Sheet Asphalt PavingSTATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building one section of State Highway, as follows:
Baltimore City. Contract BC-41. One section of State Highway along Park Heights Avenue from Keyworth Avenue to Avondale Avenue, a distance of 1.72 miles. (Sheet Asphalt). will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 15th day of January 1924, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of \$1.00 as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 26th day of December 1923.

JOHN N. MACKALL, Chairman.
L. H. STEUART, Secretary.

Bids close January 24, 1924.

Storm Drainage

Baton Rouge, La.

Sealed bids will be received by the Commission Council of Baton Rouge, La., at the City Hall, until 11.00 A. M., Jan. 24, 1924, for constructing certain storm drains in the City of Baton Rouge. The work will be let in three contracts, the Goose Hollow, Saint Philip, and Roseland Terrace Canals.

Combined approximate quantities:
4250 cu. yds. Class "A" Concrete
384,000 lbs. Reinforcing Steel
650 lin. ft. pipe
16 Manholes

Plans and specification are on file in the office of the Consulting Engineer, City Hall, Baton Rouge, La. Copies may be had upon payment of ten dollars, which will not be returned.

A certified check or bidders bond, for five thousand dollars, payable to the Commissioner of Finance, City of Baton Rouge, must accompany each bid. The right is reserved to reject any and all bids.

J. W. BILLINGSLEY,
Consulting Engineer.

Bids close January 8, 1924.

Court House and Jail Equipment

Wilson, N. C.

Sealed bids will be received by the Board of Commissioners of Wilson County for the erection of a Court House, and at the same time for the jail equipment, which said bids shall be separate.

All bids must be filed with Henry B. Lane, Chairman of the Board of Commissioners of Wilson County, on or before 10 o'clock A. M. Tuesday, January 8, 1924. All bids will be opened and considered in the office of the Board of County Commissioners of Wilson County at the Court House in Wilson, N. C. on Tuesday, January 8, 1924.

Copies of plans and specifications for the Court House and jail equipment may be obtained from Mr. Fred A. Bishop, Architect, Petersburg, Virginia, upon the deposit of Fifty Dollars (\$50.00), guaranteeing the return of the plans and specifications and the submission of a bid, which deposit will be forfeited upon non-compliance with the terms hereof. Each bidder will be required to deposit a certified check upon some Bank or Trust Company in the State of North Carolina, for \$2500.00, as a guarantee of the execution of the contract and the giving of the bond as required.

The successful bidder will be expected to execute the contract and give the bond as required by the laws of the State of North Carolina, within ten (10) days from the award.

The right to reject any and all bids is reserved.

This December 3, 1923.

HENRY B. LANE, Chairman.
Bd. of Comms. of Wilson County.
FRED A. BISHOP,
Petersburg, Va., Architect.

Bids close January 10, 1924.

\$75,000 Municipal Bonds

Summerville, S. C.

\$75,000, 20-year coupon Bonds of School District No. 18 (Summerville), of Dorchester County, S. C., denomination \$1000; bonds and coupons payable in New York. Bids solicited for entire, or part of, issue on basis of 5, 5½ and 6 per centum per annum, payable semi-annually. Bids to be submitted by 12 M. on January 10, 1924, to Edmund W. Simons, Chairman of Board of Trustees, Summerville, S. C. No bid considered unless accompanied by certified check for \$500, to be returned unsuccessful bidders, applied account successful bidder, and forfeited on non-compliance. Right reserved by Trustees to reject any and all bids.

Bids close January 29, 1924.

Street Paving

Baton Rouge, La.

Sealed bids will be received by the Commission Council, Baton Rouge, La., until 11.00 A. M. Jan. 29th, 1924, for paving sixteen streets. Bids will be received upon Asphaltic Concrete, Brick, Sheet Asphalt, and Warrentite Bitulithic, all on concrete base. Approximate quantities:

102,269 sq. yds. surfacing and base
20,311 lineal ft. straight curb and gutter
3327 lin. ft. header curb
585 lin. ft. circular curb and gutter
3970 lin. ft. drain pipe, 10 inch
2945 lin. ft. drain pipe, 12 inch
150 lin. ft. drain pipe, 15 inch
140 lin. ft. drain pipe, 18 inch
56 Catch basins
3 Manholes
2180 lin. ft. stone header
27,680 cu. yds. excavation

Plans and specifications are on file in the office of the Consulting Engineer, City Hall, Baton Rouge, La. Copies may be had upon payment of fifteen dollars, which will not be returned.

A certified check or bidders bond for 5% of amount bid, payable to the Commissioner of Finance, City of Baton Rouge, must accompany each bid. The right is reserved to reject any and all bids.

J. W. BILLINGSLEY,
Consulting Engineer.

Water Works Material

Conover, N. C.

The Town of Conover, N. C., will receive through its Engineers, Spoon & Lewis, prices on the following Water Works materials:

Cast Iron Pipe and Specials
Flow Meter
Gate and Check Valves
Hydrants
Elevated Tank

Manufacturers or agents wishing to submit prices are requested to get in touch with the Engineers, 407 American Bank Bldg., Greensboro, N. C., before January 8, 1924.

CONOVER BOARD OF ALDERMEN,
C. R. Brady, Mayor.
SPOON & LEWIS, Engineers,
Greensboro, N. C.

Bids close January 24, 1924.

Turbo-Generator

Greenville, N. C.

Sealed Proposals will be received by the Water & Light Commission of the Town of Greenville, N. C., until twelve o'clock, noon Thursday, January 24th, 1924, for one 1250 Kilowatt Steam Turbo Generator and switchboard panel for the Municipal Power Plant.

Specifications covering this equipment are on file with the Town Clerk, and copies of same may be obtained from the Engineer at Greenville, N. C., upon deposit of five dollars.

A certified check for ten per cent of the bid must accompany all proposals.

The right is reserved to reject any or all bids, or to accept the bid which the Water & Light Commission shall deem to the best interest of the Town of Greenville.

D. S. SPAIN, Chairman.
J. O. DUVAL, Town Clerk.

Engineer:
Ed. E. Williams, Greenville, N. C.

Date of opening Bids on the New Hanover County Court House Annex, extended from December 21st, 1923, until January 10th, 1924.

Addition to Court House

Wilmington, N. C.

Sealed bids will be received by the Board of County Commissioners of New Hanover County, until 10.00 o'clock A. M., Thursday, January 10th, 1924, at the office of the County Commissioners in the Court House at Wilmington, N. C., for the construction, erection and completion of a four-story, steel and reinforced concrete building 64x118 feet, on the east side of the present County Court House, facing on Princess Street, in accordance with plans and specifications prepared by Leslie N. Boney, Architect, Wilmington, N. C.

Each bid must be accompanied by a certified check for 3% of the amount of bid, made payable to J. A. Orrell, County Auditor of New Hanover County same to be forfeited in the event of the failure of the contractor to whom the contract may be awarded to sign contract and give Surety Bond in some reputable Surety Company satisfactory with the Architect and County Commissioners for the proposed building, within ten days after the acceptance, by the County Commissioners, of the bid.

Plans and specifications may be had upon application to the Architect. Each application for the general contractors plans must be accompanied by certified check for \$25.00, heating, plumbing and electric wiring plans \$15.00, made payable to L. N. Boney, Architect. Said checks will be held as a deposit until plans and specifications have been received, in good condition at the Architect's office within ten days after date of opening bids.

The Board reserves the right to hold all bids and bidders' checks for a period of four days. The checks of unsuccessful bidders will be returned on the day the contract is awarded. The check of the successful bidder will be held until satisfactory Bond, as required by Law, has been given.

The Board also reserves the right to accept any or reject any and all bids submitted.

NEW HANOVER COUNTY BOARD OF COMMISSIONERS,
December 21, 1923.
LESLIE N. BONEY, Architect.

Bids close January 10, 1924.

Land Dredge

OFFICE OF THE COMMISSIONERS OF CHATHAM COUNTY AND EX-OFFICIO JUDGES.

Savannah, Georgia, December 13, 1923.

Sealed proposals will be received by the Commissioners of Chatham County and ex-officio Judges until the 10th day of January, 1924, at 12.30 P. M., and publicly opened by them at their office at that time for furnishing the County with One (1) Internal Combustion Land Dredge equipped with not more than three-quarter cubic yards capacity bucket, operated by at least fifty horse power Internal Combustion Engine. The machinery must be so designed as to dig new ditches and also to clean out those already dug.

Bidders will be required to submit with their bids specifications to the minutest detail of the machinery they propose to furnish, giving full weight of machine, length of boom, turning radius compression per square inch on Caterpillar Tractors, and the total load of hoisting cable at different elevations of the boom, with guarantee of cost of operation, etc., and must also state at what place similar machinery to that bid on is in operation.

Proposals must be accompanied by a certified check, money deposit or bidder's liability bond, payable to the Commissioners of Chatham County, in an amount equal to 5 per cent of the amount of the total bid, to insure the successful contractor delivering the machinery bid on and at the time he agreed to deliver the same.

TIME OF PAYMENT: The successful bidder will be paid on the 15th of the following month after delivery and acceptance of the machinery by the County Commissioners, by a warrant on the County Treasurer to be paid when in funds. Said warrant when presented to and stamped by the County Treasurer will bear interest at the rate of 7 per cent from the time of said presentation and stamping until paid.

The right is reserved to reject any or all bids and to waive all formalities.

By order of
COMMISSIONERS OF CHATHAM COUNTY
AND EX-OFFICIO JUDGES.

G. Reuben Butler,
Clerk. (L. S.)

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWER, MISCELLANEOUS PROPERTIES

SOUTHERN INVESTMENT Opportunities. We offer timber lands, coal lands, mines, sawmills, cotton mills, industrial plants, ice plants, public utilities, quarries, etc. Hodgson Investment Co., Knoxville, Tenn.

IRON ORE

FOR SALE—Over 300,000,000 tons iron ore, bargeable to Muscle Shoals, mined by steam shovel, large manganese spread. C. G. Samuel, Athens, Tenn.

COAL LANDS AND MINES

FOR SALE—Electrically equipped domestic fuel coal mine, Drift, Good roof, Dry Leases controlling thousands of acres with two seams at four hundred dollars annual expense, cheaper than owning, Non-union, Permanent injunction. No labor trouble. Sell at a sacrifice. Owner going South. Box 51, Mannington, West Virginia.

MOULDING AND SILICA SAND LAND

FOR SALE
Moulding and Silica Sand Land
Address T. J. Nertney,
Ottawa, Ill.

TIMBER AND TURPENTINE PROPOSITIONS

WHEN IN THE MARKET for a saw mill, timber or turpentine proposition, write the **LAND MARKET**, Palatka, Fla.

ESTATES AND RANCHES WANTED

WANTED—Large Southern estates and Western ranches, stocked and equipped to exchange for Northern and Eastern income property showing around 10 per cent net. \$50,000 up. Arthur M. Connor, 726 14th Street, N. W., Washington, D. C.

TIMBER AND TIMBER LAND

FOR SALE: 4,000,000 feet long and short leaf pine, located on Chattahoochee River and several miles from A. C. L. R. R. Karl Simmons, R. F. D., Bascom, Fla.

TIMBER AND MILL MEN—Have fine Mahogany tract in Mexico. Other hardwoods there and in the South. Good transportation. Write me your needs, I want to supply them. Wm. S. Bye, Cedar Rapids, Iowa.

VIRGINIA SPRUCE FOR SALE—Tazewell County, Virginia, one thousand acres fine spruce, will cut close to 20,000,000 feet; trees tall, will cut six 16-foot logs to tree; six miles from railroad across mountain or 12 miles around mountain; good roads. For further particulars write **SHAMOKIN LUMBER AND MANUFACTURING CO.**, Shamokin, Pa.

FARM, FRUIT, AND TRUCK LANDS

FLORIDA

FLORIDA—Playground of the Rich; Paradise of the poor. The fastest developing State in the Union, and Roger Babson, the great business statistician, says that TAMPA is destined to be the greatest city in the Southeast. Come and be one of us. We have a Home, Grove or Farm for you. Send today for booklet "Largest Orange Tree in the World," and list. Tampa-West Coast Realty Co., (Inc.), Opp. Post Office, "Since before the war," Tampa, Fla.

20 ACRE GROVE with first class home with all modern conveniences, on hard road near town. High, healthful location. \$11,000. Other country and city property. R. P. EVANS, Realtor, Dade City, Fla.

GEORGIA

FOR SALE—Ideal Georgia Farm of 637 acres. All kind of equipment, including live stock; 450 acres in cultivation. 200 acres in peaches. Deal direct with owner. Box 136, Centerville, Tennessee.

RATES AND CONDITIONS

Rate 30 cents per line per insertion: Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. *When the advertisement contains a number of long words, proper allowance should be made.* Terms: invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

SOUTH CAROLINA

MR. BUSINESS MAN or SPORTSMAN, how would you like a winter home site on deep salt water among giant oaks, magnolias, pines, green lawns, where you can grow flowers, oranges and grapefruit? Within two hours' reach by automobile of duck, quail, deer, turkey and other wild game. Excellent climate and health. Our chief industry is growing vegetables for shipment in car and train lots in winter and early spring. Plenty of laborers. Good churches, schools, and real American citizens. Write us for further information.

LAKE REALTY COMPANY, Beaufort, S. C.

FOR SALE—10,000 acres unimproved land, in one body, 6 miles on public road from Georgetown, S. C. Suitable for colonization purposes for farms, cattle range or hunting preserve; deer, turkeys, birds and other game on property. For price and full information write to W. D. MORGAN, Georgetown, S. C.

TEXAS

200,000 ACRES OF FINE FARMING LAND located on the South Plains of West Texas, cheap. Best colonization in the South. Address. **JOHN VAUGHN**, Plainview, Tex.

VIRGINIA

"FARMS TO FIT" All kinds, easy terms. Booklet free. Magnificent 2230 acre estate, \$90,000. Easily worth \$200,000. Ponton, The Farm Tailor, Box 343, Bedford, Va.

BUSINESS OPPORTUNITIES

WANTED—Party to sell or organize company to operate attractive West Virginia land and timber proposition. Address No. 6238, care Manufacturers Record, Baltimore.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW, Harlow Building, Alexandria, Va. Colorado Building, Washington, D. C.

FIFTEEN THOUSAND DOLLARS CASH and other considerations will get the **VERY BEST GARAGE** proposition in VIRGINIA, and A. Lee Knowles, at Staunton, Va., has it for sale. **THIS IS THE REAL THING.** **KNOWLES KNOWS.**

WANTED CAPITAL to develop town site, have 640 acres that two big railroad crosses on, in S. E. Okla., surrounded by Coal, Oil, Gas and rich farming. For particulars write **J. E. Cavanagh**, McAlester, Okla.

FOR SALE—Established Clothing Manufacturing Plant. Going Concern. Location best in the South. Firm well and favorably known to the trade. Unlimited possibilities for right party. Reason for selling, age and failing health of owners. Address Box 1323, Charlotte, N. C.

BUSINESS OPPORTUNITIES

EVER-TYTE AND ZELCO PISTON RINGS with patented Zelco Process saves Gasoline, Oil, increase capacity, prevent cylinders from wearing out of round, lessen Carbon; after using, make arrangement with us to sell them; are looking for distributors with mechanical knowledge; made up to 80 inch; used in Locomotives, Boats, Engines, Compressors, Ice Machines, Pumps, Trucks, Tractors, etc.; real opportunity; all or part time. Ever-Tyte, St. Louis.

RETAIL, LUMBER YARD doing a Building Material business \$40,000.00 to \$65,000.00 per annum. About 90% is cash inside of three months. Plot is 150 ft. along P. & L. E. tracks by 100 ft. deep. **WEBSTER LUMBER CO.**, WEBSTER, PA.

FINANCIAL

VALUABLE TEXT-BOOKS on the "Money Question"—The most vital question affecting the welfare of the people. The Monetary Educational Bureau, Kellogg Bldg., Washington, D. C.

SOUTHERN MILL STOCKS BANK STOCKS BONDS

25 years' experience in this field. **F. C. ABBOTT & CO.**, Charlotte, N. C.

INDUSTRIES WANTED

THE CITY OF POWER, ELIZABETH-TON, TENN., offers to industries: Water power from two rivers; six miles factory sites; native labor, with only one-tenth of 1% foreign born (U. S. Census); more than 25 important minerals within 25 miles; virgin timber in nearby National Forest; two railroads, electric power, pure water. Location is especially suitable for wood-working, textile, ceramic, paper and metal-working plants. Write Chamber of Commerce.

INDUSTRIAL PLANTS

FOR SALE—Owner retiring, will sell cheap a good coal yard and flour mill with sidings on two railroads. Located in growing city. Good paying business for live man. Address P. O. Box No. 11, Hagerstown, Md.

FOR SALE: A well equipped Canning Factory, centrally located, good money maker. Owner has too much outside business. Also a nice Wood Working Plant. There is not a vacant store or residence in this city, as this is the educational center of Mississippi. Address

THOS. M. FERGUSON, Hattiesburg, Mississippi.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chand-lee & Chand-lee, 412 7th St., N. W., Washington, D. C.

PATENT SENSE

"The Book for Inventors and Manufacturers." **FREE. WRITE LACEY & LACEY**, Dept. 15., Washington, D. C., Est. 1869.

PATENT ATTORNEYS

PATENTS-TRADEMARKS-COPYRIGHTS.
WRITE for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing inventions. Send model or sketch and description of your invention for our free prompt opinion of its patentable nature. Highest references. Reasonable terms. **VICTOR J. EVANS & CO.,** 712 Ninth St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. **Watson E. Coleman, Patent Lawyer,** 644 G St., N. W., Washington, D. C.

AGENCIES WANTED

TRAVELING SALESMAN—Twenty years experience in Md., Va., Pa., desires mfg. lines only; thoroughly acquainted in this territory; best of references. Address No. 6230, care Manufacturers Record, Baltimore, Md.

WANTED—In order to increase our present lines, Sales Organization now operating in Southeastern territory desires connection with high-class manufacturer. If you have an article of real merit which we can offer to textile mills, steel mills, lumber mills, etc., write us. We can put the organization behind it. Address No. 6266, care Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

BRICK YARD ENGINEER can install and keep up repairs. 16 years handling brick machinery. Can furnish best of references. **A. F. L.,** P. O. Box 2161, Birmingham, Ala.

SALES MANAGER—For prominent corporation, electrical equipment or machinery or power equipment. Wide experience, good, clean-cut man. Prefer east. Headquarters Philadelphia or New York. Available January 1, 1924. High class proposition. High grade man. Salary and bonus preferred. Address No. 6267, care of Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

GRADUATE ELECTRICAL ENGINEER, thirty-five years old, who has considerable executive experience, and is A-1 salesman; but has been out of Engineering for three years on account of family reasons; desires to connect himself with responsible house in Southern territory, where energy and ability will count, preferably in capacity as salesman. No. 6265, care Manufacturers Record, Baltimore, Md.

LIVE WIRE EXECUTIVE. Engineering graduate 14 years experience as engineer and contractors executive. Considers change account of limitations present position. Manage branch office, estimate, solicit, buy, handle sub-contracts. Age 35, married. If interested outline your requirements in confidence. No. 6271, Manufacturers Record.

RAILROAD CONTRACTOR wishes position with some Lumber Company building tram roads by contract, percentage or salary. 5 years experience. No. 6270 care Manufacturers Record, Baltimore, Md.

BALTIMORE or VICINITY—technical position in chemical or allied industry wanted by graduate chemical engineer with eight years' experience in research, experimental and large scale development of organic and inorganic processes. Specialist in plant design, construction, improvement, maintenance and operation. Address No. 6268 care Manufacturers Record.

LOCOMOTIVE MACHINIST AND ENGINEER, can keep up repairs on skidders, loaders and mill machinery. Best of references, 12 years' experience. **J. A. Wilson,** P. O. Box 2161, Birmingham, Ala.

MEN WANTED

SALESMAN—High grade salesman with mechanical training to sell Davenport Heavy-duty Oil Engines to dealers and industrial plants. Opportunity to earn big commissions. Full time and side line men wanted. Write Dept. 309, Davenport Mfg. Co., Inc., Davenport, Iowa.

MEN WANTED

Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified and receptive to tentative offers for a new connection you are invited to communicate in strict confidence with the undersigned who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. **R. W. Bixby, Inc.,** 403 Lockwood Building, Buffalo, N. Y.

PIPE LAYING FOREMAN FOR CAST IRON PIPE. NO APPLICATION CONSIDERED UNLESS ACCOMPANIED BY FULL RECORD AND REFERENCES. WORK LOCATED IN NORTHERN BRAZIL. ADDRESS NO. 6269, CARE MANUFACTURERS RECORD, BALTIMORE, MARYLAND.

MACHINERY AND SUPPLIES

FOR SALE—Two Scotch Marine Boilers 200 h. p., 150 lbs. steam pressure. Boilers in good condition. **Paducah Water Company,** Paducah, Ky.

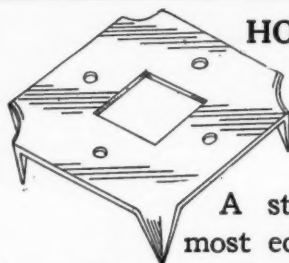
BOILERS FOR SALE, USED. We have several boilers in good condition 40, 60, 80 and 100 H.P. Good opportunity. Write for particulars and specifications. **Camp Mfg. Co.,** Franklin, Va.

MACHINERY AND SUPPLIES WANTED

WANTED—One loading machine, electrical driven, similar to Jeffrey's type G loader and one small clam-shell digger. State condition and price. Box 102, Acme, N. C.



SPECIAL ADVERTISEMENTS OF GENERAL INTEREST



HOLD FAST WASHER
patent for sale or
royalty in
U. S. and Canada

A stamped steel product
most economical to manufacture
from running coil metal without
waste between cuts.

For particulars write

J. H. JASPER

Route 4

Dearborn, Mich.

A RARE OPPORTUNITY

Splendid modern plant located in leading industrial city in Middle Atlantic States. Plant is heavy mill construction, eight stories, 48x150 feet, maple floors, sprinkler system, fine heating system, two elevators, splendid daylight and fine electric lighting system installed in building. Floors are 12 foot pitch and building carries very lowest rate of insurance. Located in good labor section on main line Southern Railway with spur track serving building. Splendid type labor available in ample supply. This plant adapted to most any type of manufacturing and can be purchased at attractive price. Those contemplating location for new enterprise or branch plant will do well to investigate.

Address A-318 Care of Manufacturers Record
Baltimore, Md.

SALE OF VALUABLE COAL LANDS MINGO COUNTY, WEST VIRGINIA

Under decree of the Circuit Court of Mingo County, West Virginia, approximately 1600 acres of undeveloped coal land in said county will be sold at the front door of the Court House at Williamson, West Virginia, on Saturday, January 19, 1924, at 10.00 o'clock A. M.

Approximately 1200 acres of this land is situate in Magnolia District, upon and near the Rockhouse Fork of Pigeon Creek, and a tract of 400 acres is situate on Guyandotte River at Gilbert. The last mentioned tract is near the Chesapeake & Ohio Railroad and the other lands are tributary to the Norfolk & Western Railway.

TERMS OF SALE will be one-third cash, and the balance in nine and eighteen months.

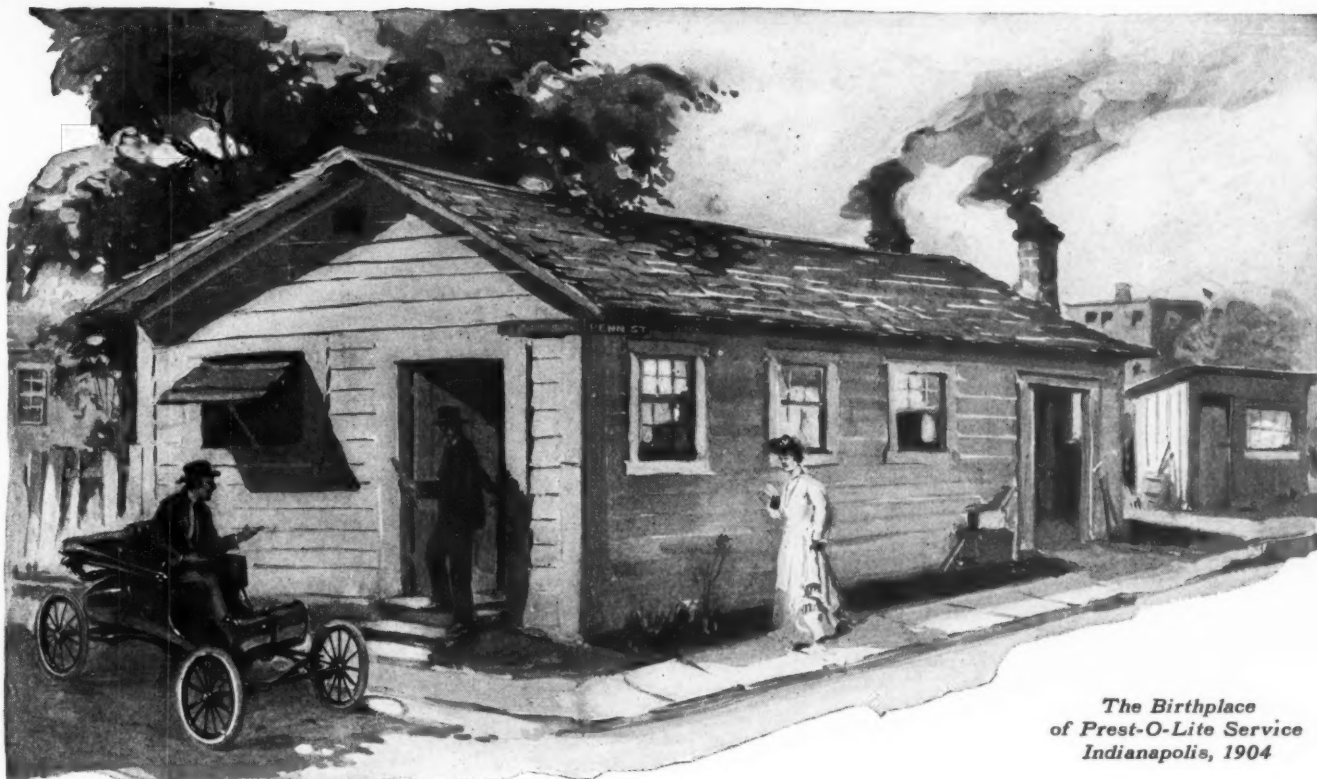
This land is very valuable in coal deposits and should be attractive to investors. Full information will be furnished upon request by

Harry Scherr, S. D. Stokes or Lant R. Slaven
SPECIAL COMMISSIONERS
Williamson, West Virginia

EVERY THURSDAY

is the publication day of the **MANUFACTURERS RECORD.** Changes of copy must reach us eight days in advance, and when proofs are required fifteen days are necessary.

MANUFACTURERS RECORD
BALTIMORE, MARYLAND



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of Prest-O-Lite Service
Indianapolis, 1904*

Prest-O-Lite pioneered for you

PREST-O-LITE was the first to conceive and put into operation the idea of a nation-wide chain of service stations.

When the Oxy-Acetylene Process made its entry into American factories, Prest-O-Lite Service was already a household expression.

Today, 28 plants and 44 warehouses

supply this one universally used gas for both welding and cutting in convenient portable form. And 1924 will see further additions to Prest-O-Lite facilities.

Prest-O-Lite Dissolved Acetylene meets every demand for an economical, safe, portable fuel gas for welding and cutting. Prest-O-Lite Service meets every demand for a dependable supply anywhere, any time.

THE PREST-O-LITE COMPANY, INC.

General Offices: Carbide & Carbon Building, 30 East 42d Street, New York

In Canada: Prest-O-Lite Co. of Canada, Toronto

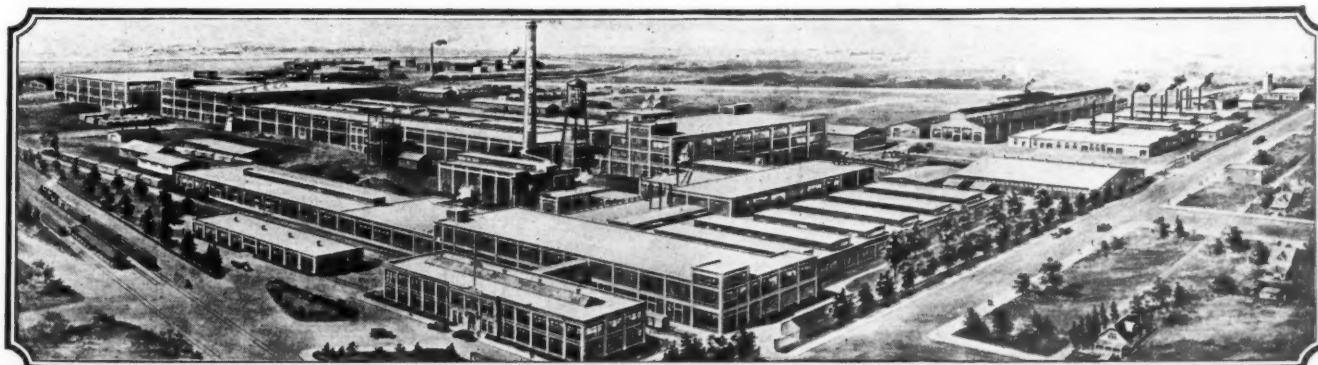
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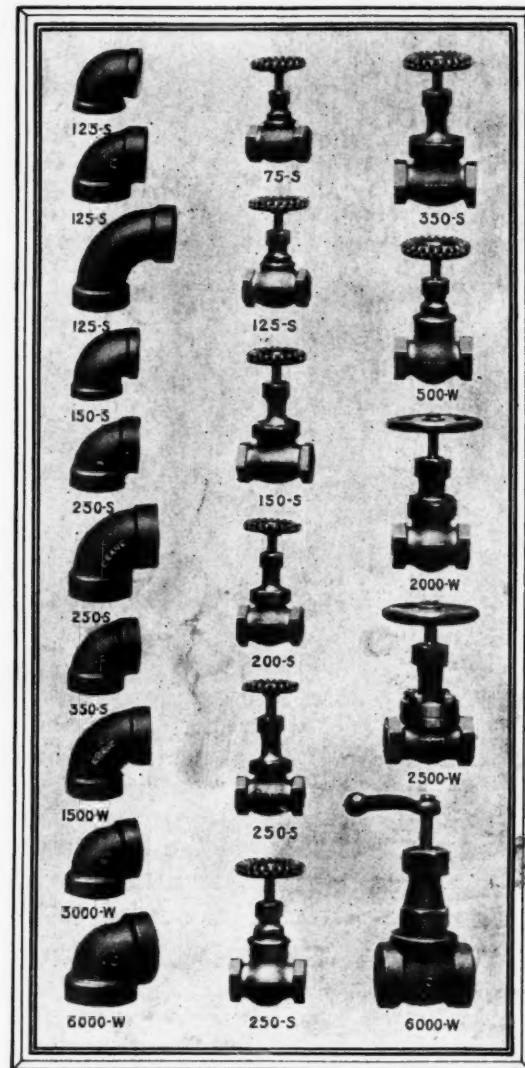


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The command of all phases of Crane Service is brought to your office each time a Crane representative calls. He can answer your questions about Crane valves, fittings, steam traps, pressure regulators and piping specialties. He is trained to work with you in the solution of your pipe-expansion problems. His understanding of industrial sanitation will often be of value to you in the choice and placing of plumbing fixtures. During the time required for a single interview, you can cover any or all of these allied questions which interest you.



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GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVE., CHICAGO

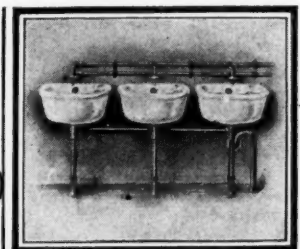
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